

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



APPENDIX I

NDEQ WHITE RIVER FIELD AND LABORATORY ANALYTICAL RESULTS

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



This page intentionally left blank

NDEQ White River Laboratory Measurements - Fort Robinson Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
01/07/08	0.07		48.78	2.38	7.422	0.93	20.5		12.32		
02/04/08	0.21			2.62		0.97	22				
03/03/08	0.08			2.13		0.89	36.5				0.04
04/07/08			48.83	2.24	7.011	0.86	39		11.42		0.06
05/05/08				2.18		0.59	37.5				0.05
05/12/08				2.47		0.61	32				
05/19/08	0.06					0.47	46.5			0.55	0.18
05/27/08				2.21		0.61	29.5				
06/02/08				1.96		0.47	44.5				0.05
06/09/08				2.11		0.58	13				0.05
06/16/08				1.65		0.48	9.5				
06/23/08				1.48		0.38	23				
06/30/08				2.29		0.3					
07/07/08				2.41		0.21					
07/14/08						0.21	14				
08/11/08			1.8								
08/18/08				1.48		0.34	26.5				
08/25/08				2.38		0.34	17				
09/01/08				2.68		0.4	22				
09/15/08				2.3		0.58	13				
09/29/08				3.28		0.49					
10/06/08			48.93	2.7	7.252	0.51			11.94		0.1
11/03/08	0.09			2.73		0.63	10.5				0.05
12/01/08				2.55		0.95	22.5				0.04
01/08/07	0.13		54.31	2.42	7.254	1.01	16.5		12.09		0.049869
02/05/07	0.14			2.69		1.09	125			0.553075	0.14495
03/05/07				2.76		1.03	37.5				0.064634
04/02/07			53.54	2.84	7.762	0.72	44		12.91		0.061275
04/16/07	0.06			2.41		0.72	23.5				
05/07/07				2.32		0.70	18.5				0.047956
05/21/07				2.36		0.53	17.5				0.057145
06/04/07	0.06			2.50		0.59	14.5				0.106792
06/11/07				2.07		0.48	7				

NDEQ White River Laboratory Measurements - Fort Robinson Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
07/09/07				2.20		0.18	15				
07/23/07	0.16		46.9	1.93	7.817	0.15			11.89		
08/06/07				2.28		0.12	5				
08/20/07				2.05		0.15	6.5				0.072892
09/10/07				2.15		0.48	5.5				
09/24/07				1.95		0.43	7.5				0.049328
10/01/07			50.53	2.19	7.782	0.45			11.67		
11/05/07	0.41			2.05		0.63	21				0.049024
12/03/07				2.34		0.97	10.5				
01/09/06	< 0.05	< 1.0	50.7	2.4	7.12	0.92	9.5	< 5.0	12.4	< 0.5	0.56
02/06/06	0.05			2.1		1.00	10			< 0.5	< 0.04
03/08/06	0.12			2.4		0.86	31.5			< 0.5	0.05
04/03/06	0.07	< 1.0	55.0	2.6	7.26	0.82	28.5	< 5.0	12.68	< 0.5	< 0.04
04/17/06	< 0.05			2.6		0.67	24.5			< 0.5	0.04
05/01/06	0.07			2.1		0.59	15			0.59	< 0.04
05/15/06	0.05			2.3		0.52	19.5			< 0.5	< 0.04
06/05/06	0.06			2.4		0.41	13.5			< 0.5	< 0.04
06/20/06	0.07			2.2		0.31	9.5			< 0.5	< 0.04
07/10/06	< 0.05	< 1.0	48.7	2.3	7.51	0.33	< 5.0	< 5.0	11.05	< 0.5	< 0.04
08/08/06	< 0.05			2.8		0.22	< 5.0			< 0.5	< 0.04
08/21/06	< 0.05			2.5		0.39	7			< 0.5	< 0.04
09/11/06	< 0.05			2.5		0.46	< 5.0			< 0.5	< 0.04
09/25/06	< 0.05			2.3		0.58	< 5.0			< 0.5	< 0.04
01/10/05	< 0.05	< 10.0	49.50	2.70	7.23	0.93	6.50	< 5.0	11.70	< 0.5	< 0.04
02/07/05	0.10			2.51		0.94	14.00			< 0.5	< 0.04
03/07/05	< 0.05			2.69		0.74	10.50			< 0.5	< 0.04
04/04/05	< 0.05	< 10.0	52.00	2.27	7.63	0.59	6.00	< 5.0	12.40	< 0.5	< 0.04
04/18/05	< 0.05			2.23		0.48	< 5.0			< 0.5	0.06
05/01/05	< 0.05			2.49		0.56	< 5.0			< 0.5	< 0.04
05/16/05	< 0.05			2.45		0.34	5.50			< 0.5	< 0.04
06/06/05	< 0.05			2.38		0.34	5.00			< 0.5	< 0.04
06/20/05	< 0.05			2.64		0.18	< 5.0			< 0.5	0.60
07/11/05	0.09	< 10.0	49.20	3.10	7.80	0.23	< 5.0	< 5.0	11.10	< 0.5	< 0.04

NDEQ White River Laboratory Measurements - Fort Robinson Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
Mo/Day/Yr	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
07/25/05	< 0.05			3.10		0.38	31.00			0.57	0.05
08/08/05	< 0.05			2.58		0.21	16.00			< 0.5	< 0.04
08/22/05	< 0.05			2.64		0.27	10.00			< 0.5	0.10
09/11/05	< 0.05			2.76		0.44	13.50			< 0.5	< 0.04
09/26/05	< 0.05			2.98		0.67	5.00			< 0.5	< 0.04
10/11/05	0.08	< 10.0	51.40	3.57	7.81	0.71	< 5.0	< 5.0	13.30	< 0.5	< 0.04
11/07/05	< 0.05			2.62		0.72	5.50			< 0.5	0.06
12/05/05	< 0.05			2.88		1.06	17.00			< 0.5	0.10
01/12/04	< 0.05		51.5	3.22	7.47	0.99	8		12.3	< 0.5	0.04
02/02/04	< 0.05			2.46		1.08	6			< 0.5	< 0.04
02/29/04	< 0.05			2.68		0.92	10			< 0.5	0.06
04/05/04	< 0.05		52.4	3.19	7.62	0.70	6.5			< 0.5	0.05
04/19/04	0.06			3.04		0.65	9.5			< 0.5	0.05
05/02/04	0.08			2.92		0.63	11.5			< 0.5	0.07
05/17/04	0.05			4.49		0.54	7.5			< 0.5	< 0.04
06/07/04	0.08			2.65		0.37	7			< 0.5	< 0.04
06/21/04	< 0.05			2.48		0.40	< 5			< 0.5	< 0.04
07/06/04	< 0.05		51.2	2.36	7.73	0.25	< 5		12.1	< 0.5	< 0.04
07/19/04	< 0.05			2.54		0.20	11.5			< 0.5	< 0.04
08/02/04	0.05			3.06		0.24	7.5			< 0.5	< 0.04
08/16/04	< 0.05			2.67		0.28	6			< 0.5	< 0.04
09/06/04	< 0.05			3.50		0.51	7			< 0.5	0.05
09/20/04	< 0.05			2.61		0.40	< 5			< 0.5	< 0.04
10/04/04	< 0.05		54.9	2.57	7.67	0.45	< 5		12.8	< 0.5	0.09
11/02/04	< 0.05			2.74		0.62	< 5			0.74	< 0.04
12/06/04	0.11			2.53		0.84	< 5			< 0.5	< 0.04
01/13/03	< .05	< 10	59.4	2.8	7.6	1.00	13		12.5	< .5	0.04
02/01/03	< .05			2.6		0.85	13.5			< .5	0.05
03/03/03	0.05			2.9		0.87	17			< .5	0.05
04/08/03	< .05	< 10	51.2	3.0	7.54	0.65	12		12.3	< .5	< .04
05/05/03	0.05			2.9		0.49	12.5			< .5	< .04
06/09/03	< .05			2.8		0.35	6			< .5	0.05
07/07/03	< .05	< 10	51.8	2.6	7.71	0.13	< 5		12.8	< .5	0.06

NDEQ White River Laboratory Measurements - Fort Robinson Station - 2001-2009

SAMPLING DATE (Mo/Day/Yr)	Ammonia mg/l	Arsenic, Dissolved ug/l	Calcium, Dissolved mg/l	Chloride mg/l	Magnesium, Dissolved mg/l	Nitrite+Nitrate (as N) mg/l	Residue, Nonfilterable (TSS) mg/l	Selenium, Total ug/l	Sodium, Dissolved mg/l	Total Kjeldahl Nitrogen mg/l	Total Phosphorus mg/l
08/05/03	< .05			2.8		0.23	< 5			< .5	0.05
09/08/03	< .05			2.8		0.27	< 5			< .5	< .04
10/06/03	< .05	< 10	54.2	2.7	7.81	0.46	9		12.5	< .5	0.04
06/17/02	< 0.05			2.56		0.23	< 5			< 0.5	0.04
07/08/02	< 0.05	< 10	47.8	2.62	7.44	0.05	9.5	< 5	12.30	< 0.5	< 0.04
08/06/02	< 0.05			3.07		0.14	11			< 0.5	< 0.04
09/03/02	< 0.05			2.69		0.33	8			< 0.5	< 0.04
10/07/02	< 0.05	< 10	54	3.24	7.74	0.44	< 5	< 5	12.10	< 0.5	< 0.04
11/04/02	< 0.05			2.90		0.67	7.0			< 0.5	< 0.04
12/02/02	< 0.05			2.91		0.75	13.0			< 0.5	< 0.04

Source: Lund 2010

NDEQ White River Laboratory Measurements - Crawford Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite-Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
01/07/08	0.06		51.18	2.9	7.394	0.7	13.5		13.5		
02/04/08	0.11			2.9		0.76	16.5				
03/03/08	0.12			2.65		0.52	11.5				
04/07/08			52.6	2.66	7.217	0.54	27.5		13.36		0.05
05/05/08				2.81		0.39	40.5				0.06
05/05/08				3.12		0.42	50.5				0.11
05/05/08				2.66		0.27	44			0.56	0.1
05/05/08				3.01		0.44	166			0.8	0.14
06/02/08				2.92		0.36	137			0.69	0.14
06/02/08				2.51		0.41	112				0.12
06/02/08				1.92		0.35	61			0.53	0.1
06/23/08				2.42		0.29	47.5				0.05
06/23/08				2.64		0.25	85				0.07
07/07/08				3.09		0.21	91				0.08
07/07/08						0.22	162				0.1
08/11/08				2.01		0.32	60				0.06
08/11/08				1.98		0.3	39.5				0.05
08/18/08				2.8							
09/01/08	0.07			3		0.34	39.5				0.05
09/01/08				3.37		0.46	101				0.08
09/01/08				2.8		0.48	31				0.05
09/01/08				3.02		0.33	16.5				
10/06/08			51.08	4.99	7.188	0.38	17.5		13.38		0.04
11/03/08				3.23		0.5	18.5				
12/01/08	0.1			3.15		0.69	7.5				
01/08/07			58.39	2.74	7.602	0.86	13.5		13.71		0.068365
02/05/07	0.07			3.15		0.98	109				0.100387
03/05/07				3.11		0.78	23				0.075251
04/02/07	0.12		57.92	3.42	7.96	0.46	33		14.43		0.060069
04/16/07	0.18			2.96		0.37	9.5				
05/07/07				2.93		0.43	43				0.09735
05/21/07				2.90		0.39	103			0.519621	0.119432
06/04/07	0.11			2.99		0.39	265				0.166529

NDEQ White River Laboratory Measurements - Crawford Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
06/11/07	0.07			2.46		0.34	28				
07/09/07	0.07			2.70		0.15	167			0.530721	0.119264
07/23/07	0.57		50.47	2.35	7.553	0.15	47.5		14.01		0.04811
08/06/07				2.65		0.19	62.5				
08/20/07				2.49		0.23	53.5				0.133743
09/10/07				2.45		0.38	38.5				0.089017
09/24/07	0.08			2.10		0.30	32.5				0.078473
10/01/07	0.11		53.15	2.72	7.892	0.33	18		12.97		0.084083
11/05/07	0.18			2.94		0.54					
12/03/07	0.06			2.90		0.80	5				
01/09/06	< 0.05	< 1.0	56.1	3.0	7.54	0.73	39	< 5.0	14.7	< 0.5	0.05
02/06/06	< 0.05			3.2		0.76	27			< 0.5	0.06
03/08/06	< 0.05			3.2		0.62	67.5			< 0.5	0.08
04/03/06	0.17	< 1.0	59.5	3.3	7.50	0.58	50.5	< 5.0	14.6	< 0.5	0.07
04/17/06	0.26			2.9		0.37	50			< 0.5	0.04
05/01/06	0.12			2.8		0.33	40			0.96	< 0.04
05/15/06	0.06			2.4		0.38	93			< 0.5	0.06
06/05/06	< 0.05			2.6		0.33	79.5			0.60	0.14
06/20/06	< 0.05			2.7		0.25	32			< 0.5	< 0.04
07/10/06	< 0.05	< 1.0	49.3	4.2	7.46	0.21	32.5	< 5.0	13.47	< 0.5	0.06
08/08/06	0.06			3.2		0.19	16			< 0.5	0.04
08/21/06	< 0.05			3.1		0.33	34.5			< 0.5	0.05
09/11/06	0.07			3.0		0.40	13.5			< 0.5	0.29
09/25/06	0.06			2.8		0.46	5			< 0.5	0.05
01/10/05	< 0.05	< 10.0	55.10	3.27	7.54	0.80	14.00	< 5.0	13.80	< 0.5	< 0.04
02/07/05	0.09			3.31		0.75	19.00			< 0.5	0.04
03/07/05	0.08			3.40		0.56	7.50			< 0.5	< 0.04
04/04/05	< 0.05	< 10.0	56.80	3.26	7.98	0.39	7.00	< 5.0	14.80	< 0.5	< 0.04
04/18/05	< 0.05			3.01		0.30	< 5.0			< 0.5	0.05
05/01/05	< 0.05			3.09		0.41	27.50			< 0.5	0.05
05/16/05	< 0.05			3.19		0.24	50.00			< 0.5	0.10
06/06/05	< 0.05			3.10		0.32	52.00			< 0.5	0.08
06/20/05	0.06			3.43		0.22	30.50			< 0.5	0.09

NDEQ White River Laboratory Measurements - Crawford Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
07/11/05	< 0.05	< 10.0	52.60	3.86	7.85	0.22	24.00	< 5.0	13.60	< 0.5	0.04
07/25/05	0.20			4.08		0.38	138.00			1.48	0.26
08/08/05	< 0.05			3.03		0.28	32.50			< 0.5	< 0.04
08/22/05	< 0.05			2.78		0.27	38.50			< 0.5	0.04
09/11/05	< 0.05			3.33		0.46	18.50			< 0.5	0.05
09/26/05	< 0.05			3.27		0.56	26.00			< 0.5	0.05
10/11/05	< 0.05	< 10.0	53.50	4.17	7.82	0.52	37.50	< 5.0	14.70	< 0.5	0.06
11/07/05	< 0.05			3.28		0.56	12.00			< 0.5	0.06
12/05/05	< 0.05			3.35		0.82	10.00			< 0.5	< 0.04
01/12/04	< 0.05		55	3.62	7.62	0.83	8.5		14.3	< 0.5	0.05
02/02/04	< 0.05			3.10		0.89	9			< 0.5	0.05
02/29/04	< 0.05			3.34		0.73	24			< 0.5	0.06
04/05/04	< 0.05		56.3	3.98	7.79	0.49	9			< 0.5	0.06
04/19/04	0.09			3.68		0.35	9			< 0.5	0.05
05/02/04	< 0.05			3.50		0.41	15			< 0.5	0.07
05/17/04	< 0.05			3.44		0.41	32.5			< 0.5	0.06
06/07/04	0.09			3.16		0.24	12			< 0.5	< 0.04
06/21/04	< 0.05			3.04		0.32	14.5			< 0.5	0.05
07/06/04	< 0.05		52.2	3.04	7.81	0.24	15		14.3	< 0.5	0.05
07/19/04	< 0.05			3.20		0.17	9.5			< 0.5	0.05
08/02/04	< 0.05			3.44		0.18	25			< 0.5	0.07
08/16/04	< 0.05			3.34		0.21	11.5			< 0.5	< 0.04
09/06/04	0.10			4.39		0.42	89			0.74	0.14
09/20/04	< 0.05			3.19		0.31	< 5			< 0.5	< 0.04
10/04/04	< 0.05		58.4	3.08	7.73	0.36	7		14.6	< 0.5	0.11
11/02/04	< 0.05			3.33		0.45	< 5			< 0.5	< 0.04
12/06/04	0.19			3.12		0.68	9.5			< 0.5	< 0.04
01/13/03	< .05	< 10	7	3.2	7.97	0.82	7		14.2	< .5	< .04
02/01/03	< .05		11	3.4		0.69	11			< .5	0.05
03/03/03	0.06		12.5	3.5		0.69	12.5			< .5	0.05
04/08/03	< .05	< 10	7.5	3.8	7.87	0.48	7.5		14.8	< .5	< .04
05/12/03	< .05		67	4.0		0.36	67			0.61	0.08
06/03/03	< .05		49	3.6		0.28	49			0.58	0.08

NDEQ White River Laboratory Measurements - Crawford Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
07/09/03	<.05	< 10	22	3.0	8.02	0.18	22		15.3	<.5	0.07
08/04/03	<.05		14	3.6		0.20	14			<.5	0.06
09/09/03	0.23		2900	4.7		0.61	2900			8.35	2.44
10/06/03	<.05	< 10	< 5	3.3	7.84	0.26	< 5		14.6	<.5	0.06
01/02/02	0.05	< 10	61.3	3.51	8.33	0.99	7.5	< 5	14.40	< 0.5	< 0.04
02/05/02	< 0.05		56.6	3.45	7.83	0.91	14.5		14.10	< 0.5	0.04
03/05/02	0.07		52.9	3.18	7.4	0.89	21.5		13.50	< 0.5	0.04
04/02/02	< 0.05	< 10	60.2	3.85	7.48	0.57	18.5	< 5	14.00	< 0.5	0.05
05/07/02	< 0.05		61.6	3.67	8.22	0.33	20		15.60	< 0.5	0.04
06/17/02	< 0.05			3.26		0.17	15			< 0.5	0.06
07/08/02	< 0.05	< 10	51.4	3.29	7.77	0.13	37	< 5	15.20	< 0.5	0.08
08/06/02	< 0.05			3.45		0.20	25			< 0.5	0.06
09/03/02	0.08			3.31		0.27	12			< 0.5	0.05
10/07/02	< 0.05	< 10	56.9	3.13	7.8	0.35	< 5	< 5	13.80	< 0.5	< 0.04
11/04/02	< 0.05			3.50		0.53	< 5			< 0.5	< 0.04
12/02/02	< 0.05			3.37		0.59	< 5			< 0.5	< 0.04
01/08/01			62.2	3.9377	8.19	0.7459815	16.5		13.2	0.511973	
02/05/01	0.0884185		46.9	3.353942	7.8	0.704935	11.5		12.5		
03/05/01			63	3.664556	7.61	0.813278	59		14.6		0.0812095
04/02/01	0.113277		51.4	4.111833	7.48	0.4889085	50		15.4		0.047041
05/07/01	0.064044		56.9	4.733584	8.01	0.510237	194		17.6	0.658743	0.129153
06/04/01	0.068394		55.3	3.694987	7.66	0.6602805	110		13.8	0.53056	0.1104615
07/09/01	0.083103		54.6	3.415668	7.57	0.3272945	59		14.9		0.114432
08/05/01	0.064998		46.4	3.745386	7.42	0.1843555			14.9		0.0477565
09/10/01			56.3	3.858378	7.8	0.31297	7		14.7		
10/01/01	0.0723245		50.5	3.294571	7.74	0.352411	6		13.7		
11/06/01			58.2	3.445887	7.58	0.560057			15		
12/03/01	0.0639755		58	3.255254	7.74	0.783853	8		14.6		

Source: Lund 2010

NDEQ White River Laboratory Measurements - Chadron Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
01/07/08	0.07		74.5	7.22	11.97	0.53			41.52		
03/03/08	0.13			8.84		0.31	52			0.99	0.2
04/07/08			65.65	9.39	11.72		41.5		60.41		0.09
05/05/08				9.58			181			0.98	0.23
06/03/08	0.07			5.31		0.07	177			2.65	1.87
09/02/08				9.12			166			1.35	0.3
10/06/08		7.02955	62.15	5.87	10.73		77.3		37.14		0.19
11/03/08				7.85		0.06	47.5				0.14
12/01/08	0.06			8.94		0.06					0.05
01/08/07			88.55	10.50	16.26	0.49			81.78		
02/05/07	0.05			11.82		0.55					
03/05/07	0.09			8.83		0.12					
04/02/07			71.51	11.10	13.57		16		68.97	0.551777	0.080949
04/16/07	0.06			10.33			79				0.077924
05/07/07	0.08			9.26			211			1.02442	0.277555
05/21/07				10.79			128			0.801414	0.229324
06/04/07	0.09			7.34		0.09	122			0.663214	0.195443
06/11/07	0.08			9.00			155			0.936286	0.219709
10/01/07	0.14		79.94	14.61	17.65		37		107.3	0.803101	0.113263
11/05/07	0.15			9.32			14.5			0.50846	0.081109
12/03/07				8.76		0.10	5.5				
01/09/06	0.08	< 1.0	68.3	8.9	12.40	0.37	16.5	< 5.0	60.6	< 0.5	< 0.04
02/06/06	< 0.05			9.5		0.34	10.5			< 0.5	< 0.04
03/08/06	< 0.05			9.8		0.18	17.5			< 0.5	0.04
04/03/06	0.32	< 1.0	62.2	13.6	9.06	0.29	452	< 5.0	50.99	1.29	0.53
04/17/06	0.09			8.9		0.18	324			1.15	0.33
05/01/06	0.19			11.8		0.22	1060			2.54	1.02
05/15/06	0.16			8.9		< 0.05	111			0.77	0.14
06/05/06	0.11			8.9		< 0.05	105			0.86	0.17
06/20/06	0.08			11.7		< 0.05	119			1.31	0.19
07/10/06	< 0.05	< 1.0	61.3	11.3	11.98	< 0.05	138	< 5.0	81.17	1.59	0.29
08/08/06	0.08			11.5		< 0.05	139			1.45	0.27
08/21/06	0.12			9.6		< 0.05	129			1.44	0.27

NDEQ White River Laboratory Measurements - Chadron Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
09/25/06	0.13			9.9		< 0.05	79			1.52	0.26
01/10/05	< 0.05	< 10.0	86.40	13.51	17.50	0.53	7.50	< 5.0	89.90	< 0.5	< 0.04
02/07/05	0.05			10.43		0.32	14.00			< 0.5	0.04
03/07/05	< 0.05			10.46		0.08	31.00			< 0.5	0.05
04/04/05	< 0.05	< 10.0	72.40	12.08	14.10	0.20	184.00	< 5.0	110.00	0.63	0.18
04/18/05	< 0.05			21.96		< 0.05	158.00			1.04	0.23
05/01/05	0.15			12.11		0.31	110.00			0.68	0.20
05/16/05	0.21			11.01		0.41	2210.00			2.61	2.21
06/06/05	0.09			9.03		0.32	1090.00			2.01	1.04
06/20/05	0.16			14.36		0.28	488.00			1.77	0.69
07/11/05	< 0.05	< 10.0	65.70	9.75	10.50	0.29	204.00	< 5.0	41.10	1.00	0.25
07/25/05	0.07			11.16		0.16	330.00			1.30	0.40
08/08/05	0.21			8.56		< 0.05	110.00			0.74	0.17
08/22/05	< 0.05			7.28		0.22	406.00			1.17	0.43
09/11/05	< 0.05			9.57		< 0.05	93.00			0.64	0.14
09/26/05	0.07			12.25		< 0.05	43.00			< 0.5	0.09
10/11/05	0.15	< 10.0	65.60	10.16	12.80	< 0.05	38.00	< 5.0	59.00	0.51	0.15
11/07/05	0.21			10.33		< 0.05	15.00			< 0.5	0.09
12/05/05	< 0.05			16.42		0.28	< 5.0			< 0.5	< 0.04
01/12/04	< 0.05		87.7	15.26	17.8	0.56	< 5		105	< 0.5	< 0.04
02/02/04	< 0.05			12.71		0.43	< 5			0.67	0.08
02/29/04	< 0.05			9.37		0.20	11			0.53	0.08
04/05/04	< 0.05		62.9	9.24	11	< 0.05	89			0.57	0.12
04/19/04	0.05			10.06		< 0.05	94			0.55	0.14
05/02/04	0.05			8.64		< 0.05	57.5			< 0.5	0.11
05/17/04	< 0.05			9.77		< 0.05	55.5			0.55	0.10
06/07/04	0.10			13.86		< 0.05	70			0.55	0.12
06/21/04	< 0.05			10.82		< 0.05	79			0.77	0.13
07/06/04	0.11		43.2	12.73	7.51	0.29	370		48.7	1.62	0.45
07/19/04	0.08			11.18		0.17	241			1.22	0.34
08/02/04	0.11			15.01		< 0.05	196			1.29	0.28
08/16/04	0.08			10.25		< 0.05	183			1.07	0.26
09/06/04	0.23			1.97		0.38	2910			6.53	3.21

NDEQ White River Laboratory Measurements - Chadron Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
09/20/04	0.05			9.82		0.06	448			1.52	0.50
10/04/04	0.09		26.4	4.20	3.86	0.39	2040		31.2	2.81	1.25
11/02/04	< 0.05			7.04		< 0.05	134			0.61	0.19
12/06/04	0.11			11.94		0.51	17.5			< 0.5	< 0.04
01/13/03	0.05	< 10	107	13.8	19.9	0.25	15		106	< .5	< .04
02/01/03	< .05			11.2		0.58	5			< .5	0.05
03/03/03	0.05			12.7		0.45	< 5			< .5	< .04
04/08/03	0.05	< 10	69.9	13.0	12.1	<.05	75		74.5	< .5	0.10
05/05/03	0.13			8.5		0.50	3580			2.49	2.91
06/09/03	< .05			10.4		0.18	209			0.97	0.28
07/07/03	< .05	11.25	64.9	8.8	10.2	<.05	180		45.8	1.00	0.28
08/05/03	< .05			16.5		<.05	81			0.91	0.17
09/08/03	< .05			8.4		<.05	67			0.69	0.13
10/06/03	< .05	< 10	59.8	7.6	10.1	<.05	87		45	0.54	0.12
01/02/02	< 0.05	< 10	96.7	14.83	18.3	0.73	5	< 5	103.00	< 0.5	< 0.04
02/05/02	0.05		81.1	10.83	15.9	0.69	6		69.20	< 0.5	< 0.04
03/05/02	0.06		75.9	10.12	13.9	0.67	8		57.90	< 0.5	< 0.04
04/02/02	0.08	< 10	36.7	6.05	6.16	0.53	1248	< 5	63.20	2.06	1.20
05/07/02	< 0.05		58.7	16.31	10.9	0.11	1520		75.70	2.52	1.36
06/17/02	< 0.05			10.15		< 0.05	83			0.61	0.16
07/08/02	< 0.05	11.55	74.4	10.85	13.5	< 0.05	131	< 5	75.40	1.36	0.30
08/06/02	0.10			11.26		< 0.05	97			1.35	0.27
09/03/02	0.09			9.65		< 0.05	79			0.75	0.19
10/07/02	< 0.05	< 10	63	8.39	10.2	< 0.05	46	< 5	59.20	0.54	0.09
11/04/02	0.05			13.36		< 0.05	11.5			0.58	0.06
12/02/02	< 0.05			12.95		0.30	19.0			< 0.5	< 0.04
01/08/01	0.0799215		93.6	13.88383	18.1	0.9216275	28		104	0.82481	0.081833
02/05/01	0.063545		70.1	12.01368	15.5	0.8222615	18.5		91.7	0.518702	0.0746595
03/05/01	0.1877735		43.3	6.227005	10.1	0.514814	306		74.7	1.865972	0.479757
04/02/01	0.063917		61	11.29337	10.9	0.269359	110		56	0.688462	0.134018
05/07/01	0.089157		62.8	14.99832	15.7	0.2021355	510		105	1.510289	0.4679395
06/04/01	0.0551175		65.9	11.45629	12	0.463248	194		63.8	0.98293	0.258926
07/09/01	0.1043685		48.5	8.732112	9.63	0.4237985	878		77.4	1.699716	0.7003655

NDEQ White River Laboratory Measurements - Chadron Station - 2001-2009

SAMPLING DATE	Ammonia	Arsenic, Dissolved	Calcium, Dissolved	Chloride	Magnesium, Dissolved	Nitrite+Nitrate (as N)	Residue, Nonfilterable (TSS)	Selenium, Total	Sodium, Dissolved	Total Kjeldahl Nitrogen	Total Phosphorus
(Mo/Day/Yr)	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l	mg/l
08/05/01	0.062077		69.7	11.89974	14.3		88		79.7	0.799391	0.1692175
09/10/01			59.1	9.625152	10.7		96		60.4	0.943361	0.167058
10/01/01	0.087271		60.4	9.828956	13.1		58		64	0.529504	0.104046
11/06/01			77.6	10.77123	15.1		10.5		77.1		0.0654255
12/03/01	0.050924		78.1	11.91022	15.3	0.5643575			78.6		

Source: Lund 2010

NDEQ White River Field Measurements - Fort Robinson Station - 2001-2009

SAMPLING DATE (Mo/Day/Yr)	WATER TEMP. °C	DISSOLVED OXYGEN mg/l	pH St. Units	CONDUCTIVITY µmhos/cm	FIELD TURBIDITY NTU	GAGE HEIGHT Ft	STREAM DISCHARGE cfs
02/02/09	2.02	No Data	8.18	324	9.8	NA	ICE
03/02/09	5.35	7.25	7.99	329	7.6	NA	11.4
04/06/09	3.30	7.38	8.09	315	11.3	NA	15.8
05/04/09	11.95	7.12	No Data	318	3.7	NA	11.9
06/02/09	12.84	No Data	8.82	258	386.0	NA	36.8
07/21/09	19.15	10.45	8.46	332	3.2	NA	11.5
08/10/09	16.32	10.33	8.44	310	5.0	NA	12.0
09/08/09	16.40	8.35	8.24	300	3.6	NA	127.2
10/05/09	8.06	9.84	8.65	324	50.3	NA	21.1
11/02/09	8.40	12.52	8.68	331	5.7	NA	19.4
01/07/08	1.7	11.94	8.54	356	NA	NA	21.90
02/04/08	2.2	11.59	8.52	305	NA	NA	ICE
03/03/08	4.4	11.90	8.66	307	NA	NA	17.6
04/07/08	4.7	10.95	8.00	304	NA	NA	14.5
05/05/08	12.7	11.13	8.50	295	16.2	NA	14.2
05/12/08	13.0	10.42	8.48	300	15.6	NA	12.70
05/19/08	15.3	10.01	8.33	289	19.5	NA	12.50
05/27/08	9.7	10.79	8.26	305	14.4	NA	17.20
06/02/08	16.1	9.34	8.41	354	22.4	NA	11.20
06/09/08	14.0	10.52	8.62	359	8.5	NA	20.50
06/16/08	15.6	10.24	8.39	421	4.6	NA	19.82
06/23/08	20.2	11.07	8.72	410	5.0	NA	NOT TAKEN
06/30/08	18.1	11.12	8.76	410	2.1	NA	18.05
07/07/08	20.1	10.86	8.53	334	0.0	NA	17.50
07/14/08	18.7	11.15	8.64	316	1.2	NA	16.16
07/21/08	21.5	10.40	8.68	325	3.0	NA	17.49
07/28/08	20.8	9.51	8.32	414	3.2	NA	18.80
08/04/08	19.9	9.34	8.47	401	2.4	NA	15.70
08/11/08	19.6	9.14	8.15	438	6.4	NA	16.70
08/18/08	17.9	9.49	8.19	444	6.1	NA	20.90
08/25/08	21.5	9.54	8.21	305	4.4	NA	17.90
09/01/08	18.9	8.70	8.17	308	6.3	NA	21.90
09/08/08	11.9	9.28	8.27	316	23.6	NA	21.10
09/15/08	12.3	9.62	8.43	321	6.1	NA	15.50
09/22/08	Not Collected	Not Collected	Not Collected	Not Collected	Not Collected	Not Collected	Not Collected
09/29/08	12.5	10.30	8.33	323	4.6	NA	18.10
10/06/08	13.2	10.14	8.56	324	3.3	NA	14.1
11/03/08	10.0	7.17	8.37	320	7.5	NA	14.6
12/01/08	2.91	NA	7.92	309	14.8	NA	16.9
01/08/07	2.8	10.2	8.02	316	9.4	NA	18.9
02/05/07	0.2	10.3	7.32	299	84.8	NA	Ice
03/05/07	4.7	9.7	7.55	298	56.7	NA	16.4
04/02/07	9.5	10.8	8.20	333	13.8	NA	18.1
04/16/07	10.8	11.2	8.45	325	11.5	NA	15.7
05/21/07	16.8	9.8	8.34	328	7.4	NA	4.7
06/04/07	16.3	10.2	8.47	331	4.3	NA	4.5
06/11/07	20.3	10.4	8.66	323	1.8	NA	5.4
07/09/07	22.2	9.4	8.47	304	5.7	NA	5.2
07/23/07	22.9	9.9	8.43	304	2.8	NA	5.4

NDEQ White River Field Measurements - Fort Robinson Station - 2001-2009

SAMPLING DATE (Mo/Day/Yr)	WATER TEMP. °C	DISSOLVED OXYGEN mg/l	pH	CONDUCTIVITY µmhos/cm	FIELD TURBIDITY NTU	GAGE HEIGHT Ft	STREAM DISCHARGE cfs
08/06/07	22.5	9.5	8.47	310	2.8	NA	7.6
08/20/07	20.8	9.4	8.40	315	3.8	NA	7.9
09/10/07	13.0	9.8	7.50	330	12.8	NA	11.4
09/24/07	13.7	8.0	7.75	318	4.1	NA	10.8
10/01/07	10.5	8.7	7.36	318	7.4	NA	11.9
11/05/07	6.5	9.8	7.75	308	12.6	NA	12.6
12/03/07	2.1	9.5	7.84	307	NA	NA	Ice
01/09/06	3.82	10.96	7.70	306	3.6	NA	12.3
02/06/06	3.12	10.37	8.36	305	6.0	NA	7.4
03/08/06	6.64	9.62	8.12	342	15.9	NA	11.8
04/03/06	8.52	9.90	8.00	302	10.5	NA	9.5
04/17/06	13.99	8.70	8.37	335	7.6	NA	13.0
05/01/06	13.38	8.90	8.49	336	7.4	NA	12.3
05/15/06	13.84	8.31	8.72	336	5.6	NA	13.5
06/05/06	19.25	6.92	8.61	316	8.0	NA	11.1
06/20/06	20.06	6.99	8.85	307	6.8	NA	4.7
07/10/06	18.15	6.04	8.50	295	1.6	NA	8.5
08/08/06	22.42	5.30	8.63	326	2.2	NA	6.0
08/21/06	18.42	9.14	8.21	335	1.5	NA	9.3
09/11/06	14.83	10.16	8.29	311	2.7	NA	14.4
09/25/06	10.65	10.93	8.39	336	2.4	NA	12.6
10/02/06	12.68	10.06	8.23	333	8.8	NA	12.4
11/06/06	6.53	11.38	8.25	329		NA	15.2
12/04/06	1.80	11.44	8.09	325	13.6	NA	13.8
01/10/05	1.47	10.17	8.09	305	6.2		
02/07/05	1.90	9.42	7.82	353	9.10		
03/07/05	5.40	8.54	8.01	347	4.40		
04/04/05	10.22	8.39	8.38	343	0.70		
04/18/05	13.75	6.87	8.55	344	1.50		
05/01/05	8.44	5.90	8.72	326	2.10		
05/16/05	15.10	12.47	8.79	336	3.50		
06/06/05	17.05	12.36	8.54	335	1.20		
06/20/05	22.06	11.52	8.60	336	1.50		
07/11/05	21.66	10.52	8.46	282	1.10		
07/25/05	21.90	7.21	7.96	345	17.50		
08/08/05	19.74	9.09	9.09	328	6.00		
08/22/05	18.32	9.40	8.53	332	5.00		
09/11/05	20.59	8.21	8.49	313	7.50	7.6	Q
09/26/05	10.82	9.64	8.25	357	3.50		
10/11/05	9.79	10.28	8.33	359	2.90		
11/07/05	7.45	11.42	8.63	345	5.5		
12/05/05	-0.16	11.14	8.12	353	12.2		
01/12/04	3.2	9.4	8.2	349	8.4	NA	17.5
02/02/04	2.4	8.6	8.0	343	3.3	NA	15.9
02/29/04	2.4	6.3	7.9	318	5.8	NA	17.9
04/05/04	11.5	10.5	8.4	313	6.1	NA	20.0
04/19/04	12.0	10.3	8.4	308	6.2	NA	14.4
05/02/04	15.6	8.7	8.5	311	7.1	NA	14.0
05/17/04	11.4	9.7	8.4	341	5.1	NA	15.0

NDEQ White River Field Measurements - Fort Robinson Station - 2001-2009

SAMPLING DATE (Mo/Day/Yr)	WATER TEMP. °C	DISSOLVED OXYGEN mg/l	pH	CONDUCTIVITY µmhos/cm	FIELD TURBIDITY NTU	GAGE HEIGHT Ft	STREAM DISCHARGE cfs
06/07/04	20.3	10.0	8.6	328	1.6	NA	7.7
06/21/04	16.1	10.8	8.9	331	0.9	NA	6.8
07/06/04	19.3	10.2	8.6	323	2.9	NA	8.1
07/19/04	21.8	9.6	8.5	312	8.1	NA	6.3
08/02/04	17.6	7.7	8.0	321	4.1	NA	9.0
08/16/04	17.9	10.1	8.3	311	0.9	NA	2.3
09/06/04	16.0	9.4	7.4	351	4.9	NA	9.6
09/20/04	15.5	8.4	7.3	337	0.6	NA	8.1
10/04/04	10.9	11.2	8.5	315	3.3	NA	11.0
11/02/04	3.8	11.7	8.3	325	5.1	NA	10.5
12/06/04	2.9	10.6	7.8	340		NA	7.7
01/13/03	1.66	13.12	8.05	350	0.2	NA	12.5
02/01/03	7.47	10.83	8.05	335	5.5	NA	16.7
03/03/03	6.39	11.75	8.16	333	6.6	NA	17.1
04/08/03	10.3	10.56	8.59	351	4.7	NA	16.94
05/05/03	11.61	10.57	8.62	356	7.2	NA	16.09
06/09/03	17.68	9.44	8.56	347	4.6	NA	16.82
07/07/03	20.77	9.57	8.28	340	0	NA	11.69
08/05/03	21.55	8.91	8.37	321	2.6	NA	8.85
09/08/03	NA	NA	NA	NA	NA	NA	11.68
10/06/03	12.46	10.61	8.63	356	5	NA	13.166
11/03/03	4.44	10.98	8.65	349	15.9	NA	15.81
12/01/03	4.44	10.53	8.27	345	4.2	NA	16.31
06/17/02	18	11.8	8.59	338			
07/08/02	27.1	9.93	8.61	320			
08/06/02	23.3	9.85	8.59	345	4		
09/03/02	19.5	10.46	8.5	346	0.9		
10/07/02	12.52	11.84	8.65	350	0		
11/04/02	4.39	12.71	9.16	353	5.9	NA	
12/02/02	4.54	12.72	8.62	354	8.2	NA	

Source: Lund 2010

NDEQ White River Field Measurements - Crawford Station - 2001-2009

SAMPLING DATE	WATER TEMP.	DISSOLVED OXYGEN	pH	CONDUCTIVITY	FIELD TURBIDITY	GAGE HEIGHT	STREAM DISCHARGE
(Mo/Day/Yr)	°C	mg/l	St. Units	µmhos/cm	NTU	Ft	cfs
01/05/09	-0.25	not taken	7.66	389	4.1	3.86	121.0
02/02/09	0.96	No Data	8.26	352	12.1	2.28	23.8
03/02/09	4.79	7.75	8.14	358	6.1	2.30	24.6
04/06/09	5.00	6.97	8.07	338	10.3	2.47	32.0
05/04/09	11.07	6.45	No Data	353	11.7	2.45	31.1
06/02/09	14.43	No Data	8.71	317	319.0	3.10	66.4
07/21/09	17.71	8.30	8.25	354	21.7	2.11	17.4
08/10/09	16.04	8.94	8.31	327	16.8	2.13	18.1
09/08/09	17.31	8.06	No Data	332	14.0	2.00	10.3
10/05/09	7.73	9.89	8.72	338	11.4	2.27	23.4
11/02/09	7.24	11.70	8.27	361	7.1	2.17	19.5
01/07/08	0.5	12.20	8.61	377	NA	2.28	23.80
02/04/08	0.7	12.13	8.64	327	NA	2.25	22.6
03/03/08	3.8	12.32	8.77	333	NA	2.25	22.6
04/07/08	5.4	10.36	7.93	333	NA	2.20	20.7
05/05/08	12.4	9.96	8.24	324	15.6	2.34	26.3
05/12/08	12.9	9.02	8.25	328	20.2	2.27	23.4
05/19/08	16.7	8.26	8.09	313	22.7	2.20	20.7
05/27/08	10.1	9.94	8.11	325	77.8	2.38	28.0
06/02/08	17.0	8.32	8.15	374	72.0	2.21	21.0
06/09/08	14.1	9.02	8.35	384	45.7	2.22	21.4
06/16/08	15.8	8.69	8.16	446	31.8	2.14	18.4
06/23/08	19.5	8.28	8.25	436	24.8	2.11	17.4
06/30/08	17.3	8.42	8.34	435	38.0	2.05	13.4
07/07/08	20.0	7.78	8.14	353	48.1	2.05	13.4
07/14/08	17.3	8.39	8.21	356	78.1	1.90	5.8
07/21/08	20.5	7.58	8.26	343	54.0	1.87	4.8
07/28/08	21.0	7.54	8.02	432	56.2	1.98	9.3
08/04/08	19.6	7.71	8.23	428	34.0	1.84	4.0
08/11/08	19.4	7.77	7.97	453	28.9	1.89	5.5
08/18/08	16.8	8.19	8.03	467	27.1	1.94	7.4
08/25/08	19.5	7.92	7.90	331	19.2	1.87	4.8
09/01/08	18.2	7.80	8.02	332	20.8	1.87	4.8
09/08/08	11.2	9.02	8.20	336	46.9	2.19	20.3
09/15/08	11.6	9.16	8.38	340	17.1	1.98	9.3
09/29/08	11.8	8.89	8.13	346	11.0	1.98	9.3
10/06/08	12.7	8.63	8.28	345	11.3	2.05	13.4
11/03/08	9.9	6.45	8.40	353	9.3	2.19	20.3
12/01/08	2.27	NA	8.05	337	5.4	2.22	21.4
01/08/07	1.6	10.8	7.74	346	9.3	2.25	18.0
02/05/07	0.6	10.6	7.53	337	46.5	2.30	20.0
03/05/07	3.9	9.8	7.43	325	30.2	2.25	18.0
04/02/07	9.8	10.3	7.92	366	15.3	2.29	16.7
04/16/07	11.0	10.7	8.21	354	4.2	2.24	18.3
05/21/07	17.1	7.7	8.06	358	63.8	2.05	12.8
06/04/07	16.2	8.3	7.96	354	84.8	2.03	12.3
06/11/07	19.1	8.4	8.20	357	11.3	2.03	12.3
07/09/07	21.1	7.2	7.91	328	67.0	1.79	11.3
07/23/07	22.5	7.2	8.04	329	17.8	1.70	5.0

NDEQ White River Field Measurements - Crawford Station - 2001-2009

SAMPLING DATE	WATER TEMP.	DISSOLVED OXYGEN	pH	CONDUCTIVITY	FIELD TURBIDITY	GAGE HEIGHT	STREAM DISCHARGE
(Mo/Day/Yr)	°C	mg/l	St. Units	µmhos/cm	NTU	Ft	cfs
08/06/07	21.9	7.1	8.02	338	26.3	1.74	5.8
08/20/07	20.8	7.2	8.05	336	233.0	1.78	6.5
09/10/07	12.1	9.0	7.52	350	42.7	1.92	9.6
09/24/07	14.4	7.7	7.78	331	10.9	1.91	9.4
10/01/07	10.9	8.7	7.42	332	16.1	1.92	9.6
11/05/07	6.1	8.7	7.49	331	14.9	2.10	14.2
12/03/07	1.4	9.3	7.71	339	Not taken	2.13	15.0
01/09/06	3.48	10.56	7.52	336	14.4	2.37	21.0
02/06/06	2.60	11.36	7.94	332	22.7	2.36	20.0
03/08/06	7.48	10.29	8.20	374	16.9	2.36	20.0
04/03/06	8.09	9.39	7.91	329	18.3	2.34	20.0
04/17/06	14.31	8.52	8.15	359	13.9	NA	No Flow Value
05/01/06	13.06	8.84	8.08	364	13.0	2.35	22.1
05/15/06	14.02	7.89	8.17	363	31.4	2.34	26.0
06/05/06	18.97	6.14	8.37	337	47.6	2.32	21.0
06/20/06	18.94	6.13	8.47	327	17.7	2.26	19.0
07/10/06	18.24	5.39	8.13	607	15.1	2.05	5.2
08/08/06	21.27	4.70	8.30	348	14.3	NA	3.5
08/21/06	17.66	8.20	7.97	367	22.8	1.85	<3.0
09/11/06	14.12	8.80	8.02	326	10.8	1.99	<3.0
09/25/06	10.14	9.71	7.91	359	13.1	2.04	4.8
10/02/06	12.42	8.61	7.96	348	4.2	2.01	4.1
11/06/06	5.83	10.44	7.90	357		2.16	11.0
12/04/06	1.10	11.87	7.60	362	23.1	2.17	13.0
01/10/05	0.75	10.15	7.79	335	10.6		
02/07/05	2.60	8.98	7.86	389	12.60		
03/07/05	5.96	7.54	7.34	382	7.20		
04/04/05	10.61	7.47	8.18	376	2.40		
04/18/05	14.12	5.52	8.27	374	3.90		
05/01/05	7.34	5.38	8.19	368	2.34		
05/16/05	15.36	9.36	8.25	362	20.60		
06/06/05	16.86	9.40	8.10	368	22.00		
06/20/05	21.70	7.40	8.15	360	14.80		
07/11/05	21.25	8.04	7.12	307	26.50		
07/25/05	21.90	6.10	7.67	294	113.00		
08/08/05	19.05	7.63	8.20	356	19.60		
08/22/05	18.78	7.67	8.26	347	21.40		
09/11/05	18.69	8.14	8.39	344	14.50	12.9	Q
09/26/05	10.46	9.05	8.10	378	18.50		
10/11/05	8.72	9.49	8.10	378	22.80		
11/07/05	6.16	10.36	8.18	373	18.4		
12/05/05	-0.23	11.15	8.07	389	55.6		
01/12/04	1.2	10.3	8.1	374	5.9	NA	19.3
02/02/04	1.4	8.8	7.7	376	5.7	NA	19.0
02/29/04	2.7	5.9	7.8	350	13.3	2.36	22.5
04/05/04	11.2	9.1	8.1	335	9.5	2.27	19.3
04/19/04	12.8	10.8	8.4	336	8.1	2.24	18.3
05/02/04	13.3	10.6	8.5	339	11	2.3	20.3
05/17/04	11.4	9.1	8.2	370	21.8	2.21	17.3

NDEQ White River Field Measurements - Crawford Station - 2001-2009

SAMPLING DATE (Mo/Day/Yr)	WATER TEMP. °C	DISSOLVED OXYGEN mg/l	pH St. Units	CONDUCTIVITY μmhos/cm	FIELD TURBIDITY NTU	GAGE HEIGHT Ft	STREAM DISCHARGE cfs
06/07/04	20.7	9.2	8.5	358	7	2.12	14.7
06/21/04	16.7	9.6	8.5	356	11.4	2.23	18.0
07/06/04	17.2	8.9	8.2	343	11.6	2.22	17.6
07/19/04	21.7	7.8	8.2	337	9.3	2.14	15.3
08/02/04	19.2	6.8	8.0	352	12.6	2.17	16.1
08/16/04	17.5	8.4	8.0	342	6.4	2.16	15.8
09/06/04	14.8	8.5	7.0	342	49	2.49	27.4
09/20/04	16.2	7.5	7.1	361	2.6	2.27	19.3
10/04/04	10.5	9.3	8.1	336	6.3	2.23	18.0
11/02/04	4.0	10.1	8.0	347	13.5	2.31	22.0
12/06/04	2.6	10.8	7.7	373		2.29	20.0
01/13/03	0.81	14.12	8.11	386	0.9	2.22	17.6
02/01/03	6.42	10.9	7.95	368	7.5	2.25	18.6
03/03/03	5.08	11.51	8.19	367	4.9	2.26	19
04/08/03	9.32	10.92	8.48	381	4.8	2.32	21
05/06/03	13.34	9.56	8.22	383	23.6	2.26	13.6
06/03/03	18.33	8.5	8.3	372	20.7	2.22	17.6
07/09/03	21.5	8.83	8.25	374	11.9	2.17	16.1
08/04/03	21.16	7.85	8.05	349	12.2	2.08	19
09/09/03	NA	NA	Na	NA		4.1	121.2
10/06/03	12.17	10.44	8.37	375	3.4	2.14	15.3
11/03/03	4.45	10.71	8.06	375	4.4	2.26	19
12/01/03	4.31	10.48	8.25	379	3.8	2.26	19
01/02/02	0.2	16.75	8.2	378		2.47	
02/05/02	16	13.9	8.24	403		2.28	
03/05/02	0.9	12.11	8.21	392		2.33	
04/02/02	5.9	9.05	8.21	397		2.44	
05/07/02	11.6	12.18	8.05	403		2.3	
06/07/02	19.2	10.32	8.25	374		2.2	
07/08/02	25.7	8.75	6.11	355		2.04	
08/06/02	21.6	8.43	8.06	363	16.1	1.95	
09/03/02	17.56	9.97	8.16	372	5.2	1.87	
10/07/02	11.04	10.67	8.23	372	0	2.13	
11/04/02	2.97	13.46	8.46	384	6.3	2.25	
12/02/02	3.88	12.64	8.21	385	3.7	2.26	
01/08/01	2.20	13.23	7.00	323		2.20	
02/05/01	4.00	12.80	8.63	392		2.35	
03/05/01	5.50	14.20	9.33	344		2.42	
04/02/01	8.50	15.30	8.42	355		2.35	
05/07/01	9.90	10.19	8.22	412	38.5	2.48	
06/04/01	12.70	10.15	8.02	408	4.63	2.31	
07/09/01	21.00	7.82	7.67	356	15.1	2.18	
08/05/01	26.10	9.43	8.22	302	4.43	1.85	
09/10/01	11.80	9.85	7.75	402		1.95	
10/01/01	13.20	9.66	8.03	373	2.51	2.15	
11/06/01	8.00	8.10	8.11	362	1	2.30	
12/03/01	4.00	15.63	8.20	388	3.62	2.40	

Source: Lund 2010

NDEQ White River Field Measurements - Chadron Station - 2001-2009

SAMPLING DATE (Mo/Day/Yr)	WATER TEMP. °C	DISSOLVED OXYGEN mg/l	pH St. Units	CONDUCTIVITY μmhos/cm	FIELD TURBIDITY NTU	GAGE HEIGHT Ft	STREAM DISCHARGE cfs
01/05/09	-0.22	not taken	7.20	649	5.2	ice	ice
02/02/09	frozen solid	frozen solid	No Data	frozen solid	frozen solid	NA	frozen solid
03/02/09	-0.26	8.07	8.00	563	8.2	NA	ICE
04/06/09	0.24	7.74	8.12	663	156.0	ICE	ICE
05/04/09	10.24	5.85	No Data	528	72.6	NA	37.5
06/02/09	13.74	No Data	8.72	267	5999.0	not taken	flooding
07/21/09	19.58	6.89	8.16	472	121.0	NA	26.6
08/10/09	18.24	7.03	8.03	401	498.0	NA	20.0
09/08/09	21.52	7.33	8.51	544	170.0	NA	6.6
10/05/09	7.41	9.47	8.87	532	30.2	NA	14.0
11/02/09	4.07	11.35	8.02	492	509.0	NA	48.3
01/07/08	-0.1	10.98	8.40	631	NA	NA	NA ICE
02/04/08	NA	NA	NA	NA	NA	NA	FROZEN
03/03/08	-0.2	12.99	8.62	581	NA	NA	ICE
04/07/08	4.8	9.18	7.84	574	NA	NA	7.2
05/05/08	11.3	8.28	8.33	566	213.0	NA	14.3
06/03/08	17.6	6.81	8.15	514	2000.0	NA	13.8
07/21/08	23.1	4.21	8.01	596	171.0	NA	0.7
08/05/08	22.4	5.42	8.28	653	334.0	NA	6.9
09/02/08	19.1	6.82	8.10	551	279.0	NA	7.9
10/06/08	13.3	5.66	8.02	515	111.0	NA	4.1
11/03/08	8.0	5.67	8.01	549	61.9	NA	4.3
12/01/08	-0.24	NA	7.68	606	11.8	NA	ICE
01/08/07	-0.2	11.3	7.52	742	38.4	Not Taken	Ice
02/05/07	-0.2	10.7	7.29	778	37.7	Not Taken	Ice
03/05/07	-0.3	12.5	7.24	566	41.7	Not Taken	Ice
04/02/07	7.1	9.9	7.97	660	22.1	NA	16.0
04/16/07	9.9	8.9	8.15	674	85.9	NA	17.3
05/21/07	18.3	5.5	8.18	686	136.0	NA	5.4
06/04/07	17.5	6.2	8.04	561	126.0	NA	5.3
06/11/07	19.5	6.0	8.11	669	134.0	NA	3.5
07/09/07	NA	NA	NA	NA	NA	Dry	Dry
07/23/07	NA	NA	NA	NA	NA	Dry	Dry
08/06/07	NA	NA	NA	NA	NA	Dry	Dry
08/20/07	NA	NA	NA	NA	NA	Dry	Dry
09/10/07	NA	NA	NA	NA	NA	Dry	Dry
09/24/07	NA	NA	NA	NA	NA	Dry	Dry
10/01/07	16.7	6.4	7.74	798	67.4	NA	0.4
11/05/07	3.7	8.1	7.36	619	63.7	NA	1.1
12/03/07	-0.2	8.6	7.77	609	NA	NA	Ice
01/09/06	-0.26	10.62	7.32	582	7.0	ICE	ICE
02/06/06	-0.24	12.07	7.71	606	33.0	ICE	ICE
03/08/06	-0.24	12.18	7.95	702	27.7	NA	18.4
04/03/06	7.01	9.43	7.99	485	305.0	NA	30.6
04/17/06	14.21	7.37	8.12	515	244.0	NA	27.4
05/01/06	11.41	8.02	7.93	598	140.0	NA	34.8
05/15/06	13.04	7.35	8.51	640	91.1	NA	21.3
06/05/06	20.45	5.27	8.55	877	121.0	NA	14.5
06/20/06	21.04	4.88	8.54	936	75.5	NA	2.0

NDEQ White River Field Measurements - Chadron Station - 2001-2009

SAMPLING DATE	WATER TEMP.	DISSOLVED OXYGEN	pH	CONDUCTIVITY	FIELD TURBIDITY	GAGE HEIGHT	STREAM DISCHARGE
(Mo/Day/Yr)	°C	mg/l	St. Units	µmhos/cm	NTU	ft	cfs
07/10/06	20.97	4.14	8.28	611	113.0	NA	2.5
08/08/06	22.00	3.01	8.07	680	107.0	NA	0.5
08/21/06	19.49	4.30	7.55	558	101.0	NA	0.5
09/11/06	DRY	DRY	DRY	DRY	DRY	DRY	DRY
09/25/06	9.16	6.92	7.61	790	180.0	NA	1.3
10/02/06	13.05	5.54	7.70	983	64.9	NA	2.2
11/06/06	1.61	11.15	7.59	566		NA	7.1
12/04/06	0.15	11.92	7.57	1038	45.1	NA	Ice Covered
01/10/05	-0.29	8.43	8.12	808	34.0		
02/07/05	-0.25	9.94	7.90	772	48.70		
03/07/05	-0.25	8.86	7.44	575	41.20		
04/04/05	9.02	8.15	856.00		206.00	117.0	
04/18/05	14.19	4.82	8.46	723	176.00	99.0	
05/01/05	6.78	5.69	8.34	532	114.00		
05/16/05	13.29	9.34	8.20	532		22.8	Q
06/06/05	16.36	8.87	8.17	495			
06/20/05	23.64	6.78	8.10	594	520.00	33.5	
07/11/05	22.68	7.15	8.26	469	209.00	126.0	Q
07/25/05	24.22	6.00	8.09	768	340.00		
08/08/05	22.04	6.77	8.55	527	110.00		
08/22/05	19.81	7.20	8.41	542			
09/11/05	20.27	7.93	8.95	528	105.00	60.8	Q
09/26/05	11.40	8.10	8.03	796	63.10		
10/11/05	8.39	7.64	7.91	637	42.70		
11/07/05	3.19	10.67	8.00	730	22.9		
12/05/05	-0.24	10.94	7.77	1074	36.4		
01/12/04	-0.2	7.5	7.6	930	7.2	NA	6.5
02/02/04	-0.3	8.8	7.5	854	14.7	NA	6.5
02/29/04	-0.2	6.7	7.8	544	16	NA	21.1
04/05/04	10.5	8.8	8.3	485	101	NA	37.0
04/19/04	11.6	8.3	8.4	529	112	NA	25.5
05/02/04	11.7	10.2	8.6	501	68.5	NA	28.5
05/17/04	11.6	8.0	8.9	570		NA	9.4
06/07/04	20.6	5.6	8.4	776	85.4	NA	3.6
06/21/04	16.6	7.8	8.6	717	101	NA	5.0
07/06/04	17.9	6.5	8.0	447	554	NA	5.4
07/19/04	24.2	5.2	8.2	560	333	NA	5.1
08/02/04	22.8	6.1	8.1	890	207	NA	3.2
08/16/04	19.0	5.7	8.0	601	205	NA	1.4
09/06/04	15.7	7.2	7.1	329	5999	Flooded	Flooded
09/20/04	17.8	7.1	7.2	516	5.52	NA	17.2
10/04/04	10.3	8.9	7.8	257	2000	NA	28.7
11/02/04	2.0	11.1	7.9	526	146	NA	10.1
12/06/04	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
01/13/03	-0.25	14.95	7.74	972	16.5	Frozen	Frozen
02/01/03	-0.19	12.95	7.7	733	37.6	NA	Frozen
03/03/03	-0.15	13.57	8.02	780	15	NA	Frozen
04/08/03	2.19	12.3	8.43	711	65.6	NA	9.72
05/05/03	11.55	9.01	8.26	495	2000	NA	Flooding

NDEQ White River Field Measurements - Chadron Station - 2001-2009

SAMPLING DATE (Mo/Day/Yr)	WATER TEMP. °C	DISSOLVED OXYGEN mg/l	pH St. Units	CONDUCTIVITY µmhos/cm	FIELD TURBIDITY NTU	GAGE HEIGHT Ft	STREAM DISCHARGE cfs
06/09/03	14.7	8.21	8.38	785	193	NA	27.08
07/07/03	21.26	6.86	8.06	556		NA	12.83
08/05/03	22.44	5.4	7.97	633	103	NA	0.3015
09/08/03	19.49	6.68	8.18	510	71.5	NA	0.972
10/06/03	8.99	9.32	8.2	539	122	NA	16.8
11/03/03	1.53	10.02	7.98	647	18.5	NA	6.03
12/01/03	-0.16	9.59	7.72	836	31	NA	6.33
01/02/02	0.2	15.9	7.91	898		NA	
02/05/02	0.2	14.3	8.05	817		NA	
03/05/02	0.01	12.11	8.1	749		NA	
04/02/02	0.1	14.26	8.27	527		NA	
05/07/02	12.1	10.01	8.28	670			
06/17/02	18.7	8.94	8.33	658			
07/08/02	24	5.7	8.1	738			
08/06/02	21	3.8	7.86	897	115		
09/03/02	21	4.95	8	505	97		
10/07/02	8.25	9.68	7.99	602	46.9		
11/04/02	-0.18	12.3	8.27	848	19	NA	
12/02/02	-0.23	13.77	8.09	856	26	NA	
01/08/01	0.30	16.93	6.00	297			ICE
02/05/01	0.20	14.16	6.23	682			ICE
03/05/01	0.20	14.57	8.86	374			ICE
04/02/01	6.40	12.44	8.42	534			51.2
05/07/01	9.80	8.02	8.32	901	531		HI FLOW
06/04/01	13.70	9.60	8.20	601	108		HI FLOW
07/09/01	23.20	8.23	7.72	648	631		35.0
08/05/01	26.60	10.14	8.12	759	58		13.2
09/10/01	14.00	9.42	7.70	676	68.7		5.9
10/01/01	14.30	7.76	8.02	479	40.2		6.2
11/06/01	6.10	6.35	8.02	711	8.47		8.0
12/03/01	0.30	15.30	8.20	826	4.15		

Source: Lund 2010

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

**Environmental Report
Three Crow Expansion Area**



APPENDIX J

FLORA AND FAUNA LISTS

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



Appendix J-1

Plant Species List

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



PLANT SPECIES LIST

Scientific Name	Common Name
EQUISETACEAE	
<i>Equisetum laevigatum</i>	Smooth horsetail
PINACEAE	
<i>Pinus ponderosa</i>	Ponderosa pine
RANUNCULACEAE	
<i>Anemone patens</i>	Pasque-flower
<i>Clematis ligusticifolia</i>	Western clematis
<i>Ranunculus abortivus</i>	Early wood buttercup
<i>Thalictrum dasycarpum</i>	Purple meadowrue
PAPAVERACEAE	
<i>Argemone polyanthemos</i>	Prickle poppy
FUMARIACEAE	
<i>Corydalis aurea</i>	Golden corydalis
ULMACEAE	
<i>Ulmus americana</i>	American elm
<i>Ulmus pumila</i>	Siberian elm
CANNABACEAE	
<i>Humulus lupulus</i>	Common hop
URTICACEAE	
<i>Urtica dioica</i>	Stinging nettle
CACTACEAE	
<i>Coryphantha vivipara</i>	Pincushion cactus
<i>Opuntia fragilis</i>	Brittle prickly pear
CARYOPHYLLACEAE	
<i>Arenaria hookeri</i>	Hooker sandwort
<i>Cerastium arvense</i>	Prairie chickweed
<i>Paronychia jamesii</i>	James nailwort
<i>Stellaria media</i>	Common chickweed
CHENOPodiaceae	
<i>Chenopodium album</i>	Lamb's-quarters
<i>Chenopodium fremontii</i>	Fremont goosefoot
<i>Chenopodium leptophyllum</i>	Maple-leaved goosefoot
CHENOPodiaceae	
<i>Kochia scoparia</i>	Kochia
<i>Salsola iberica</i>	Russian thistle

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



PLANT SPECIES LIST

Scientific Name	Common Name
AMARANTHACEAE	
<i>Amaranthus graecizans</i>	Tumbleweed
<i>Amaranthus retroflexus</i>	Rough pigweed
POLYGONACEAE	
<i>Polygonum convolvulus</i>	Wild buckwheat
<i>Polygonum ramosissimum</i>	Bushy knotweed
MALVACEAE	
<i>Malva rotundifolia</i>	Common mallow
<i>Sphaeralcea coccinea</i>	Red false mallow
VIOLACEAE	
<i>Viola canadensis</i>	Canada violet
<i>Viola nuttallii</i>	Yellow prairie violet
SALICACEAE	
<i>Populus deltoids</i>	Plains cottonwood
<i>Salix exigua</i>	Coyote willow
CAPPARACEAE	
<i>Cleome serrulata</i>	Rocky mountain beeplant
BRASSICACEAE	
<i>Arabis holboellii</i>	Rockcress
<i>Brassica kaber</i>	Charlock
<i>Capsella bursa-pastoris</i>	Shepherd's purse
<i>Chorispora tenella</i>	Blue mustard
<i>Descurainia pinnata</i>	Tansy mustard
<i>Descurainia sophia</i>	Flixweed
<i>Draba reptans</i>	Whote whitlowwort
<i>Erysimum asperum</i>	Western wallflower
<i>Erysimum repandum</i>	Bushy wallflower
<i>Lesquerella ludoviciana</i>	Bladderpod
<i>Sisymbrium altissimum</i>	Tumbling mustard
<i>Thlaspi arvense</i>	Penny cress
PRIMULACEAE	
<i>Androsace occidentalis</i>	Western rock jasmine
SAXIFRAGACEAE	
<i>Ribes odoratum</i>	Buffalo currant
ROSACEAE	
<i>Prunus americana</i>	Wild plum
<i>Prunus virginiana</i>	Chokecherry
<i>Rosa acicularis</i>	Prickly wild rose
<i>Rosa arkansana</i>	Prairie wild rose

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



PLANT SPECIES LIST

Scientific Name	Common Name
<i>Rosa woodsii</i>	Western wild rose
FABACEAE	
<i>Astragalus gracilis</i>	Slender milkvetch
<i>Astragalus missouriensis</i>	Missouri milkvetch
<i>Lupinus argentus</i>	Silvery lupine
<i>Medicago falcata</i>	Yellow lupine
<i>Medicago sativa</i>	Alfalfa
<i>Melilotus alba</i>	White sweetclover
<i>Melilotus officinalis</i>	Yellow sweetclover
<i>Oxytropis lambertii</i>	Purple locoweed
<i>Psoralea argophylla</i>	Silver-leaf scurf pea
<i>Psoralea esculenta</i>	Breadroot scurf pea
<i>Psoralea lanceolata</i>	Lemon scurf pea
<i>Vicia americana</i>	American vetch
ONAGRACEAE	
<i>Gaura coccinea</i>	Velvety gaura
<i>Oenothera caespitosa</i>	Gumbo lily
<i>Oenothera nuttallii</i>	White-stemmed evening primrose
CORNACEAE	
<i>Comandra umbellata</i>	Bastard toadflax
EUPHORBIACEAE	
<i>Croton texensis</i>	
<i>Euphorbia podperae</i>	
VITACEAE	
<i>Parthenocissus vitacea</i>	Woodbine
ACERACEAE	
<i>Acer negundo</i>	Box elder
ANACARDIACEAE	
<i>Rhus aromatica</i>	Aromatic sumac
<i>Toxicodendron rydbergii</i>	Poison ivy
ZYGOPHYLLACEAE	
<i>Tribulus terrestris</i>	Puncture vine
LINACEAE	
<i>Linum perenne</i>	Blue flax
<i>Linum rigidum</i>	Stiffstem flax
POLYGALACEAE	
<i>Polygala alba</i>	White milkwort

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



PLANT SPECIES LIST

Scientific Name	Common Name
APIACEAE	
<i>Lomatium nudtallii</i>	Wild parsley
APOCYNACEAE	
<i>Apocynum cannabinum</i>	Hemp dogbane
ASCLEPIADACEAE	
<i>Asclepias speciosa</i>	Showy milkweed
SOLANACEAE	
<i>Solanum rostratum</i>	Buffalo bur
CONVOLVULACEAE	
<i>Convolvulus arvensis</i>	Field bindweed
<i>Convolvulus sepium</i>	Hedge bindweed
POLEMONIACEAE	
<i>Phlox andicola</i>	Moss phlox
BORAGINACEAE	
<i>Cryptantha jamesii</i>	James' cryptantha
<i>Lappula redowskii</i>	Low stickseed
<i>Lithospermum incisum</i>	Narrow-leaved puccoon
LAMIACEAE	
<i>Mentha arvensis</i>	Field mint
<i>Monarda pectinata</i>	Spotted bee balm
PLANTAGINACEAE	
<i>Plantago patagonica</i>	Buckhorn
OLEACEAE	
<i>Fraxinus pennsylvanica</i>	Green ash
SCROPHULARIACEAE	
<i>Penstemon albidus</i>	White beardtongue
<i>Penstemon angustifolius</i>	Narrow beardtongue
<i>Penstemon glaber</i>	Smooth beardtongue
<i>Penstemon grandiflorus</i>	Large beardtongue
<i>Verbascum thapsus</i>	Common mullein
CAMPANULACEAE	
<i>Campanula rotundifolia</i>	Harebell
RUBIACEAE	
<i>Galium aparine</i>	Catchweed bedstraw
CAPRIFOLIACEAE	
<i>Symphoricarpos occidentalis</i>	Western snowberry
ASTERACEAE	
<i>Achillea millefolium</i>	Yarrow

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



PLANT SPECIES LIST

Scientific Name	Common Name
<i>Agoseris glauca</i>	False dandelion
<i>Antennaria rosea</i>	Rose pussytoes
<i>Artemisia campestris</i>	Western sagebrush
<i>Artemisia frigida</i>	Fringed sagebrush
<i>Artemisia ludoviciana</i>	White sage
<i>Chrysopsis villosa</i>	Golden aster
<i>Cirsium undulatum</i>	Wavyleaf thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Crepis runcinata</i>	Hawk's-beard
<i>Echinacea angustifolia</i>	Purple coneflower
<i>Erigeron pumilus</i>	Low fleabane
<i>Grindelia squarrosa</i>	Curly-top gumweed
<i>Gutierrezia sarothrae</i>	Broom snakeweed
<i>Helianthus annuus</i>	Common sunflower
<i>Helianthus petiolaris</i>	Plains sunflower
<i>Lygodesmia juncea</i>	Skeleton-weed
<i>Ratibida columnifera</i>	Prairie coneflower
<i>Ridbeckia hirta</i>	Black-eyed susan
<i>Senecio plattensis</i>	Prairie ragwort
<i>Taraxacum officinale</i>	Dandelion
<i>Townsendia exscapa</i>	Easter daisy
<i>Tragopogon dubius</i>	Goatsbeard
COMMELINACEAE	
<i>Tradescantia occidentalis</i>	Prairie spiderwort
JUNCACEAE	
<i>Juncus balticus</i>	Baltic rush
CYPERACEAE	
<i>Carex filifolia</i>	Thread-leaved sedge
<i>Carex hystericina</i>	Bottlebrush sedge
<i>Carex lanuginosae</i>	Wooly-headed sedge
<i>Carex nebrascensis</i>	Nebraska sedge
<i>Carex rossii</i>	Ross' sedge
POACEAE	
<i>Agropyron cristatum</i>	Crested wheatgrass
<i>Agropyron intermedium</i>	Intermediate wheatgrass
<i>Agropyron pectiniforme</i>	Smooth crested wheatgrass
<i>Agropyron smithii</i>	Western wheatgrass
<i>Agropogon scoparius</i>	Little bluestem
<i>Aristida longiseta</i>	Red threeawn

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



PLANT SPECIES LIST

Scientific Name	Common Name
<i>Bouteloua gracilis</i>	Blue grama
<i>Bromus inermis</i>	Smooth brome
<i>Bromus japonicus</i>	Japanese brome
<i>Bromus tectorum</i>	Cheatgrass
<i>Buchloe dactyloides</i>	Buffalo-grass
<i>Cenchrus longispinus</i>	Field sandbur
<i>Elymus canadensis</i>	Canada wild rye
<i>Festuca octoflora</i>	Six-weeks fescue
<i>Hordeum jubatum</i>	Foxtail barley
<i>Hordeum pusillum</i>	Little barley
<i>Koeleria pyramidata</i>	Junegrass
<i>Oryzopsis hymenoides</i>	Indian ricegrass
<i>Panicum capillare</i>	Witchgrass
<i>Poa compressa</i>	Canada bluegrass
<i>Poa pratensis</i>	Kentucky bluegrass
<i>Poa sandbergii</i> = <i>(P. secunda)</i>	Sandberg bluegrass
<i>Setaria glauca</i>	Yellow foxtail
<i>Setaria viridis</i>	Green foxtail
<i>Sitanion hystrix</i>	Squirreltail
<i>Stipa comata</i>	Needle-and-thread
<i>Stipa viridula</i>	Green needlegrass
<i>Triticum aestivum</i>	Wheat
LILIACEAE	
<i>Allium textile</i>	White wild onion
<i>Calochortus nuttallii</i>	Mariposa lily
<i>Leucocrinum montanum</i>	Mountain lily
<i>Smilacina stellata</i>	Spikenard
<i>Yucca glauca</i>	Yucca
<i>Zigadenus venenosus</i>	Death camass
IRIDACEAE	
<i>Sisyrinchium montanum</i>	Blue-eyed grass

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



Appendix J-2

Mammal Species List

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



MAMMAL SPECIES LIST

Order/Common Name	Scientific Name	Documented Status ¹
CARNIVORES		
Carnivora		
Raccoon	<i>Procyon lotor</i>	D
Long-tailed weasel	<i>Mustela frenata</i>	D
Mink	<i>Mustela vison</i>	D
Black-footed ferret	<i>Mustela nigripes</i>	E
Badger	<i>Taxidea taxus</i>	D
Spotted skunk	<i>Spilogale putorius</i>	E
Striped skunk	<i>Mephitis mephitis</i>	D
Coyote	<i>Canis latrans</i>	D
Swift fox	<i>Vulpes velox</i>	R
Red fox	<i>Vulpes fulva</i>	D
Bobcat	<i>Lynx rufus</i>	D
Mountain lion	<i>Felis concolor</i>	R
BIG GAME MAMMALS		
Artiodactyla		
Mule deer	<i>Odocoileus hemionus</i>	D
White-tailed deer	<i>Odocoileus virginianus</i>	D
Pronghorn	<i>Antilocapra americana</i>	D
Elk	<i>Cervus elaphus</i>	D
Bighorn sheep	<i>Ovis canadensis</i>	D
Bison	<i>Bison bison</i>	D
Moose	<i>Alces alces</i>	R
Mule deer/White-tailed deer hybrid	<i>O. hemionus x virginianus</i>	D
SMALL MAMMALS		
Chiroptera		
Keen myotis	<i>Myotis keeni</i>	E
Little brown myotis	<i>Myotis lucifugus</i>	E
Fringed myotis	<i>Myotis thysanodes</i>	E
Long-eared myotis	<i>Myotis evotis</i>	E
Long-legged myotis	<i>Myotis volans</i>	E
Small-footed myotis	<i>Myotis subulatus</i>	E
Silver-haired bat	<i>Lasionycteris noctivagans</i>	E
Red bat	<i>Lasiurus borealis</i>	E
Big brown bat	<i>Eptesicus fuscus</i>	E

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



MAMMAL SPECIES LIST

Order/Common Name	Scientific Name	Documented Status ¹
Hoary bat	<i>Lasiurus cinereus</i>	E
Western big-eared bat	<i>Plecotus townsendi</i>	E
Insectivora		
Masked shrew	<i>Sorex cinereus</i>	E
Dwarf shrew	<i>Sorex nanus</i>	E
Merriam shrew	<i>Sorex merriami</i>	E
Least shrew	<i>Cryptotis parva</i>	E
Eastern mole	<i>Scalopus aquaticus</i>	D
Lagomorpha		
White-tailed jackrabbit	<i>Lepus townsendi</i>	D
Black-tailed jackrabbit	<i>Lepus californicus</i>	D
Eastern cottontail	<i>Sylvilagus floridanus</i>	D
Desert cottontail	<i>Sylvilagus auduboni</i>	D
Rodentia		
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	D
Thirteen-lined ground squirrel	<i>Spermophilus tridecemlineatus</i>	D
Spotted ground squirrel	<i>Citellus spilosoma</i>	D
Least chipmunk	<i>Eutamias minimus</i>	D
Eastern fox squirrel	<i>Sciurus niger</i>	D
Northern pocket squirrel	<i>Thomomys talpoides</i>	D
Plains pocket gopher	<i>Geomys bursarius</i>	E
Wyoming pocket mouse	<i>Perognathus fasciatus</i>	E
Plains pocket mouse	<i>Perognathus flavescens</i>	E
Silky pocket mouse	<i>Perognathus flavus</i>	E
Hispid pocket mouse	<i>Perognathus hispidus</i>	E
Ord kangaroo rat	<i>Dipodomys ordii</i>	D
Beaver	<i>Castor canadensis</i>	D
Plains harvest mouse	<i>Reithrodontomys montanus</i>	E
Western harvest mouse	<i>Reithrodontomys megalotis</i>	E
White-footed mouse	<i>Peromyscus leucopus</i>	D
Deer mouse	<i>Peromyscus maniculatus</i>	D
Northern grasshopper mouse	<i>Onychomys leucogaster</i>	E
Eastern woodrat	<i>Neotoma floridana</i>	E

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



MAMMAL SPECIES LIST

Order/Common Name	Scientific Name	Documented Status ¹
Bushy-tailed woodrat	<i>Neotoma cinerea</i>	E
Brown rat	<i>Rattus norvegicus</i>	E
House mouse	<i>Mus musculus</i>	D
Meadow vole	<i>Microtus pennsylvanicus</i>	D
Prairie vole	<i>Microtus ochrogaster</i>	D
Muskrat	<i>Ondatra zibethicus</i>	D
Meadow jumping mouse	<i>Zapus hudsonicus</i>	D
Porcupine	<i>Erethizon dorsatum</i>	D

¹ D Documented in the 1982 baseline study.
E Expected to occur - historical or recent evidence.
R Reported by knowledgeable individual(s).

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



Appendix J-3

Bird Species List

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
GAVIIFORMES		
Common loon	<i>Gavia immer</i>	R
Arctic loon	<i>Gavia arctica</i>	R
PODICIPEDIFORMES		
Red-necked grebe	<i>Podiceps grisegena</i>	R
Horned grebe	<i>Podiceps auritus</i>	D
Eared grebe	<i>Podiceps caspicus</i>	D
Western grebe	<i>Aechmophorus occidentalis</i>	D
Pied-billed grebe	<i>Podilymbus podiceps</i>	
PELECANIFORMES		
White pelican**	<i>Pelicanus erythrorhynchos</i>	D
Double-crested cormorant**	<i>Phalacrocorax auritus</i>	D
CICONIFORMES		
Great blue heron	<i>Ardea herodias</i>	D
Green heron	<i>Butorides virescens</i>	R
Cattle egret	<i>Bubulcus ibis</i>	R
Great egret	<i>Casmerodius albus</i>	R
Snowy egret	<i>Leucophoyx thula</i>	R
Black-crowned night heron**	<i>Nycticorax nycticorax</i>	D
Yellow-crowned night heron	<i>Nyctanassa violacea</i>	R
American bittern**	<i>Botaurus lentiginosus</i>	D
White-faced ibis	<i>Plegadis chihi</i>	R
ANSERIFORMES		
Whistling swan	<i>Olor columbianus</i>	R
Trumpeter swan	<i>Olor buccinator</i>	D
Canada goose	<i>Branta canadensis</i>	D
Brant	<i>Branta bernicla</i>	R
White-fronted goose	<i>Anser albifrons</i>	D
Snow goose	<i>Chen hyperborea</i>	D
Mallard*	<i>Anas platyrhynchos</i>	D
Black duck	<i>Anas rubripes</i>	R
Gadwall**	<i>Anas strepera</i>	D
Pintail**	<i>Anas acuta</i>	D
Green-winged teal**	<i>Anas carolinensis</i>	D
Blue-winged teal**	<i>Anas discors</i>	D

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
Cinnamon teal	<i>Anas cyanoptera</i>	D
American wigeon	<i>Mareca americana</i>	D
Northern shoveler	<i>Spatula clypeata</i>	D
Wood duck	<i>Aix sponsa</i>	D
Redhead	<i>Aythya americana</i>	D
Ring-necked duck	<i>Aythya collaris</i>	D
Canvasback	<i>Aythya valisineria</i>	D
Lesser scaup	<i>Aythya affinis</i>	D
Common goldeneye	<i>Bucephala clangula</i>	D
Barrow's goldeneye	<i>Bucephala islandica</i>	R
Bufflehead	<i>Bucephala albeola</i>	D
Oldsquaw	<i>Clangula hyemalis</i>	R
White-winged scoter	<i>Melanitta deglandi</i>	R
Surf scoter	<i>Melanitta perspicillata</i>	R
Black scoter	<i>Oidemia nigra</i>	R
Ruddy duck	<i>Oxyura jamaicensis</i>	D
Hooded merganser	<i>Lophodytes cucullatus</i>	D
Common merganser	<i>Mergus merganser</i>	D
Red-breasted merganser	<i>Mergus serrator</i>	R
FALCONIFORMES		
Turkey vulture	<i>Cathartes aura</i>	D
Goshawk	<i>Accipiter gentilis</i>	D
Sharped-shinned hawk	<i>Accipiter striatis</i>	D
Cooper's hawk	<i>Accipiter cooperi</i>	D
Red-tailed hawk	<i>Buteo jamaicensis</i>	
Red-shouldered hawk	<i>Buteo lineatus</i>	R
Broad-winged hawk	<i>Buteo platypterus</i>	R
Swainson's hawk	<i>Buteo swainsoni</i>	R
Rough-legged hawk	<i>Buteo lagopus</i>	D
Ferruginous hawk	<i>Buteo regalis</i>	D
Golden eagle	<i>Aquila chrysaetos</i>	D
Bald eagles	<i>Haliaeetus leucocephalus</i>	D
Northern harrier	<i>Circus cyaneus</i>	D
Osprey	<i>Pandion haliaetus</i>	R
Gyrfalcon	<i>Falco rusticolus</i>	D
Prairie falcon	<i>Falco mexicanus</i>	D
Peregrine falcon	<i>Falco peregrinus</i>	R
Merlin	<i>Falco columbarius</i>	D

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
American kestrel	<i>Falco sparverius</i>	D
GALLIFORMES		
Sharp-tailed grouse*	<i>Pedioecetes phasianellus</i>	D
Bobwhite	<i>Colinus virginianus</i>	R
Ring-necked pheasant*	<i>Phasianus colchicus</i>	D
Turkey*	<i>Meleagris gallopavo</i>	D
Gray partridge**	<i>Perdix perdix</i>	D
GRUIFORMES		
Sandhill crane	<i>Grus canadensis</i>	D
Virginia rail**	<i>Rallus limicola</i>	D
Sora rail**	<i>Porzana carolina</i>	D
American coot**	<i>Fulica americana</i>	D
CHARADRIIFORMES		
Semipalmated plover	<i>Charadrius semipalmatus</i>	R
Mountain plover	<i>Charadrius montainus</i>	E
Piping plover	<i>Charadrius melanotos</i>	R
Snowy plover	<i>Charadrius alexandrinus</i>	R
Killdeer*	<i>Charadrius vociferus</i>	D
American golden plover	<i>Pluvialis dominica</i>	R
Black-bellied plover	<i>Squatarola squatarola</i>	D
Marbled godwit	<i>Lemosia fedoa</i>	D
Whimbrel	<i>Numenius phaeopus</i>	R
Long-billed curlew**	<i>Numenius americanus</i>	D
Upland sandpiper**	<i>Bartramia longicauda</i>	D
Greater yellowlegs	<i>Totanus melanoleucus</i>	D
Lesser yellowlegs	<i>Totanus flavipes</i>	D
Solitary sandpiper	<i>Tringa solitaria</i>	D
Willet**	<i>Catoptrophorus semipalmatus</i>	D
Spotted sandpiper**	<i>Actitis macularia</i>	D
Common snipe*	<i>Capella gallinago</i>	D
Short-billed dowitcher	<i>Limnodromus griseus</i>	R
Long-billed dowitcher	<i>Limnodromus scolopaceus</i>	D
Red knot	<i>Calidris canutus</i>	R
Sanderling	<i>Calidris alba</i>	D
Semipalmated sandpiper	<i>Ereunetes pusillus</i>	D
Western sandpiper	<i>Ereunetes mauri</i>	R
Least sandpiper	<i>Eriola minutilla</i>	D
White-rumped sandpiper	<i>Eriola fuscicollis</i>	R

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
Baird's sandpiper	<i>Eriola bairdii</i>	D
Pectoral sandpiper	<i>Eriola melanotos</i>	R
Stilt sandpiper	<i>Micropalama himantopus</i>	D
CHARADRIIFORMES		
Buff-breasted sandpiper	<i>Tryngites subruficollis</i>	R
American avocet**	<i>Recurvirostra americana</i>	D
Wilson's phalarope**	<i>Steganopus tricolor</i>	D
Northern phalarope	<i>Lobipes lobatus</i>	D
Parasitic jaeger	<i>Stercorarius parasiticus</i>	R
Herring gull	<i>Larus argentatus</i>	R
California gull	<i>Larus californicus</i>	R
Ring-billed gull	<i>Larus delawarensis</i>	D
Black-headed gull	<i>Larus ridibundus</i>	R
Franklin's gull	<i>Larus pipixcan</i>	D
Bonaparte's gull	<i>Larus philadelphia</i>	R
Forster's tern	<i>Sterna forsteri</i>	D
Common tern	<i>Sterna hirundo</i>	R
Least (Least interior) tern	<i>Sterna albifrons</i>	R
Black tern**	<i>Chlidonias niger</i>	D
COLUMBIFORMES		
Mourning dove*	<i>Zenaidura macroura</i>	D
Rock dove*	<i>Columba livia</i>	D
CUCULIFORMES		
Yellow-billed cuckoo**	<i>Coccyzus americanus</i>	D
Black-billed cuckoo**	<i>Coccyzus erythrophthalmus</i>	D
STRIGIFORMES		
Barn owl**	<i>Tyto alba</i>	D
Screech owl**	<i>Otus asio</i>	D
Great horned owl*	<i>Bubo virginianus</i>	D
Snowy owl	<i>Nyctea scandiaca</i>	R
Burrowing owl*	<i>Speotyto cunicularia</i>	D
Barred owl	<i>Strix varia</i>	R
Long-eared owl	<i>Asio otus</i>	R
Short-eared owl**	<i>Asio flammeus</i>	D
Saw-whet owl**	<i>Aegolius acadicus</i>	D
CAPRIMULGIFORES		
Common poor-will**	<i>Phalaenoptilus nuttallii</i>	D
Common nighthawk**	<i>Chordeiles minor</i>	D

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
APODIFORMES		
Chimney swift**	<i>Chaetura pelagica</i>	D
White-throated swift**	<i>Aeronautes saxatalis</i>	D
Broad-tailed hummingbird	<i>Selasphorus platycercus</i>	R
Rufous hummingbird	<i>Selasphorus rufus</i>	R
CORACIIFORMES		
Belted kingfisher**	<i>Megaceryle alcyon</i>	D
PICIFORMES		
Common flicker*	<i>Colaptes auratus</i>	D
Red-bellied woodpecker	<i>Centurus carolinus</i>	R
Red-headed woodpecker*	<i>Melanerpes erythrocephalus</i>	D
Lewis' woodpecker**	<i>Asyndesmus lewisi</i>	D
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	R
Hairy woodpecker**	<i>Dendrocopos villosus</i>	D
Downy woodpecker**	<i>Dendrocopos pubescens</i>	D
PASSERIFORMES		
Eastern kingbird*	<i>Tyrannus tyrannus</i>	D
Western kingbird*	<i>Tyrannus verticalis</i>	D
Cassin's kingbird	<i>Tyrannus vociferans</i>	R
Scissor-tailed flycatcher	<i>Muscivora forficata</i>	R
Great crested flycatcher**	<i>Myiarchus crinitus</i>	D
Eastern phoebe**	<i>Sayornis phoebe</i>	D
Say's phoebe**	<i>Sayornis saya</i>	D
Black phoebe	<i>Sayornis nigricans</i>	D
Willow flycatcher**	<i>Empidonax traillii</i>	D
Least flycatcher	<i>Empidonax minimus</i>	D
Hammond's flycatcher	<i>Empidonax hammondi</i>	R
Western flycatcher	<i>Empidonax difficilis</i>	R
Eastern pewee**	<i>Contopus virens</i>	D
Western pewee*	<i>Contopus sordidulus</i>	D
Olive-sided flycatcher	<i>Nuttalornis borealis</i>	R
Horned lark*	<i>Eremophila alpestris</i>	D
Violet-green swallow**	<i>Tachycineta thalassina</i>	D
Tree swallow**	<i>Iridoprocne bicolor</i>	D
Bank swallow*	<i>Riparia riparia</i>	D
Rough-winged swallow**	<i>Stelgidopteryx ruficollis</i>	D
Barn swallow*	<i>Hirundo rustica</i>	D
Cliff swallow*	<i>Petrochelidon pyrrhonota</i>	D

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
Purple martin	<i>Progne subis</i>	R
Gray jay	<i>Perisoreus canadensis</i>	R
Blue jay**	<i>Cyanocitta cristata</i>	R
Stellar's jay	<i>Cyanocitta stelleri</i>	R
Black-billed magpie*	<i>Pica pica</i>	D
American crow*	<i>Corvus brachyrhynchos</i>	D
Pinyon jay**	<i>Gymnorhinus cyanocephalus</i>	D
Clark's nutcracker	<i>Nucifraga columbiana</i>	R
Black-capped chickadee**	<i>Parus atricapillus</i>	D
Tufted titmouse	<i>Parus bicolor</i>	R
White-breasted nuthatch**	<i>Sitta carolinensis</i>	D
Red-breasted nuthatch**	<i>Sitta canadensis</i>	D
Pygmy nuthatch**	<i>Sitta pygmaea</i>	D
Brown creeper**	<i>Certhia familiaris</i>	D
Dipper	<i>Cinclus mexicanus</i>	R
Northern house wren**	<i>Troglodytes aedon</i>	D
Winter wren	<i>Troglodytes troglodytes</i>	R
Bewick's wren	<i>Thryomanes bewickii</i>	R
Carolina wren	<i>Thryothorus ludovicianus</i>	R
Marsh wren**	<i>Telmatodytes palustris</i>	D
Canyon wren	<i>Catherpes mexicanus</i>	R
Rock wren**	<i>Salpinctes obsoletus</i>	D
Mockingbird	<i>Mimus polyglottos</i>	R
Gray catbird**	<i>Dumetella carolinensis</i>	D
Brown thrasher**	<i>Toxostoma rufum</i>	D
Sage thrasher	<i>Oreoscopetes montanus</i>	R
American robin*	<i>Turdus migratorius</i>	D
Wood thrush	<i>Hylocichla mustelina</i>	D
Hermit thrush	<i>Hylocichla guttata</i>	D
Swainson's thrush	<i>Hylocichla ustulata</i>	D
Gray-cheeked thrush	<i>Hylocichla ustulata</i>	D
Veery	<i>Hylocichla fuscencens</i>	D
Eastern bluebird	<i>Sialia sialis</i>	R
Mountain bluebird**	<i>Sialia currucoides</i>	D
Townsend's solitaire**	<i>Myadestes townsendi</i>	D
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>	R
Golden-crowned kinglet	<i>Rugulus satrapa</i>	R
Ruby-crowned kinglet	<i>Rugulus calendula</i>	D

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
Water pipit	<i>Anthus spinolella</i>	D
Bohemian waxwing	<i>Bombycilla garrulus</i>	D
Cedar waxwing**	<i>Bombycilla cedrorum</i>	D
Northern shrike	<i>Lanius excubitor</i>	D
Loggerhead shrike**	<i>Lanius ludovicianus</i>	D
European starling*	<i>Sturnus vulgaris</i>	D
White-eyed vireo	<i>Vireo griseus</i>	R
Bell's vireo**	<i>Vireo bellii</i>	D
Yellow-throated vireo	<i>Vireo flavifrons</i>	R
Solitary vireo	<i>Vireo solitarius</i>	R
Red-eyed vireo**	<i>Vireo olivaceus</i>	D
Philadelphia vireo	<i>Vireo philadelphicus</i>	R
Warbling vireo**	<i>Vireo gilvus</i>	D
Black and white warbler	<i>Mniotilla varia</i>	D
Prothonotary warbler	<i>Protonotaria citrea</i>	R
Tennessee warbler	<i>Vermivora peregrina</i>	D
Orange-crowned warbler	<i>Vermivora celata</i>	D
Nashville warbler	<i>Vermivora ruficapilla</i>	D
Northern parula	<i>Parula americana</i>	R
Yellow warbler**	<i>Dendroica petechia</i>	D
Magnolia warbler	<i>Dendroica magnolia</i>	R
Cape May warbler	<i>Dendroica tigrina</i>	R
Yellow-rumped warbler	<i>Dendroica coronata</i>	
(Audubon race)**	<i>Dendroica coronata</i>	D
(Myrtle race)	<i>Dendroica coronata</i>	D
Townsend's warbler	<i>Dendroica townsendi</i>	R
Black-throated green warbler	<i>Dendroica virens</i>	R
Cerulean warbler	<i>Dendroica cerulea</i>	R
Blackburnian warbler	<i>Dendroica fusca</i>	R
Chestnut-sided warbler	<i>Dendroica pensylvanica</i>	R
Blackpoll warbler	<i>Dendroica striata</i>	D
Palm warbler	<i>Dendroica palmarum</i>	R
Ovenbird**	<i>Seiurus aurocapillus</i>	D
Northern waterthrush	<i>Seiurus noveboracensis</i>	D
PARULIDAE		
Mourning warbler	<i>Oporornis philadelphia</i>	R
MacCillivray's warbler	<i>Oporornis tolmiei</i>	R
Common yellowthroat**	<i>Geothlypis trichas</i>	D

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
Yellow-breasted chat**	<i>Icteria virens</i>	D
Hooded warbler	<i>Wilsonia citrina</i>	R
Wilson's warbler	<i>Wilsonia pusilla</i>	D
American redstart**	<i>Setophaga ruticilla</i>	D
House sparrow*	<i>Passer domesticus</i>	D
Bobolink**	<i>Dolichonyx oryzivorus</i>	D
Eastern meadowlark**	<i>Sturnella magna</i>	D
Western meadowlark*	<i>Sturnella neglecta</i>	D
Yellow-headed blackbird**	<i>Xanthocephalus xanthocephalus</i>	D
Red-winged blackbird*	<i>Agelaius phoeniceus</i>	D
Orchard oriole**	<i>Icterus spurius</i>	D
Northern (Bullock) oriole**	<i>Icterus galbula</i>	D
Rusty blackbird	<i>Euphagus carolinus</i>	R
Brewer's blackbird**	<i>Euphagus cyanocephalus</i>	D
Common grackle**	<i>Quiscalus quiscula</i>	D
Brown-headed cowbird**	<i>Molothrus ater</i>	D
Western tanager**	<i>Piranga ludoviciana</i>	D
Scarlet tanager	<i>Piranga olivacea</i>	R
Cardinal	<i>Richmondena cardinalis</i>	R
Rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	R
Blue grosbeak**	<i>Guiraca caerulea</i>	D
Indigo bunting**	<i>Passerina cyanea</i>	D
Lazuli bunting**	<i>Passerina amoena</i>	D
Indigo x lazuli hybrid**	<i>P. cyanea x amoena</i>	D
FRINGILLIDAE		
Dickcissel	<i>Spiza americana</i>	R
Evening grosbeak	<i>Herperiphona vespertina</i>	D
Purple finch	<i>Carpodacus purpureus</i>	R
Cassin's finch	<i>Carpodacus cassini</i>	R
House finch	<i>Carpodacus mexicanus</i>	D
Pine grosbeak	<i>Pinicola enucleator</i>	R
Gray-crowned rosy finch	<i>Leucosticte tephrocotis</i>	R
Common redpoll	<i>Acanthis flammea</i>	R
Pine siskin**	<i>Spinus pinus</i>	D
American goldfinch**	<i>Spinus tristis</i>	D
Red crossbill**	<i>Loxia curvirostra</i>	D
White-winged crossbill	<i>Loxia leucoptera</i>	R
Green-tailed towhee	<i>Chlorura chlorura</i>	R

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



BIRD SPECIES LIST

Common Name	Scientific Name	Status ¹
Rufous-sided towhee**	<i>Pipilo erythrorthalmus</i>	D
Lark bunting**	<i>Calamospiza melanocoryx</i>	D
Savannah sparrow	<i>Passerculus sandwichensis</i>	D
Grasshopper sparrow	<i>Ammodramus savannarum</i>	D
Vesper sparrow**	<i>Pooecetes gramineus</i>	D
Lark sparrow*	<i>Chondestes grammacus</i>	D
Black-throated sparrow	<i>Amphispiza bilineata</i>	R
Dark-eyed junco	<i>Junco hyemalis</i>	
(White-winged race)**	<i>Junco hyemalis</i>	D
(Slate-colored race)	<i>Junco hyemalis</i>	D
(Oregon race)	<i>Junco hyemalis</i>	D
(Gray-headed race)	<i>Junco hyemalis</i>	D
Tree sparrow	<i>Spizella arborea</i>	D
Chipping sparrow**	<i>Spizella passerina</i>	D
Clay-colored sparrow**	<i>Spizella pallida</i>	D
Brewer's sparrow**	<i>Spizella breweri</i>	D
Field sparrow	<i>Spizella pusilla</i>	R
Harris' sparrow	<i>Zonotrichia querula</i>	R
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	D
White-throated sparrow	<i>Zonotrichia albicollis</i>	R
Fox sparrow	<i>Passerella iliaca</i>	R
Lincoln's sparrow	<i>Melospiza lincolni</i>	D
Swamp sparrow	<i>Melospiza georgiana</i>	R
Song sparrow	<i>Melospiza melodia</i>	D
McCown's longspur**	<i>Rhynchophanes mccownii</i>	D
Lapland longspur	<i>Calcarius lapponicus</i>	D
Chestnut-collared longspur**	<i>Calcarius ornatus</i>	D
Snow bunting	<i>Plectrophenax nivalis</i>	D

1 Documentation:

- D Documented in the 1982 study.
- E Expected to occur - historical or recent evidence.
- R Reported by knowledgeable individual(s).

*confirmed breeder

**suspected breeder

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



Appendix J-4

Amphibian and Reptile Species List

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



SIOUX/DAWES COUNTY HERP LIST

Common Name	Scientific Name	Status
AMPHIBIANS		
Eastern tiger salamander	<i>Ambystoma tigrinum</i>	
Great plains toad	<i>Bufo cognatus</i>	
Woodhouse's toad	<i>Bufo woodhousii</i>	
Western chorus frog	<i>Pseudacris triseriata</i>	
Plains spadefoot	<i>Spea bombifrons</i>	
Northern leopard frog	<i>Rana pipiens</i>	
Bullfrog	<i>Rana catesbeiana</i>	
REPTILES		
Lesser earless lizard	<i>Holbrookia maculata</i>	
Short-horned lizard	<i>Phrynosoma hernandesi</i>	
Prairie lizard	<i>Sceloporus undulatus</i>	
Many-lined skink	<i>Eumeces multivirgatus</i>	R
Bullsnake	<i>Pituophis catenifer</i>	
Yellow-bellied racer	<i>Coluber constrictor</i>	
Plains garter snake	<i>Thamnophis radix</i>	
Red-sided/Common garter snake	<i>Thamnophis sirtalis</i>	
Plains hognose snake	<i>Heterodon nasicus</i>	
Prairie rattlesnake	<i>Crotalus viridis</i>	
W. terrestrial garter snake	<i>Thamnophis elegans</i>	R
Plains milk snake	<i>Lampropeltis triangulum</i>	R
Northern water snake	<i>Nerodia sipedon</i>	R
Common snapping turtle	<i>Chelydra serpentina</i>	
Painted turtle	<i>Chrysemys picta</i>	

R: RARE but possible

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



Appendix J-5

Fish Species List

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



FISH SPECIES LIST

Family/Common Name	Scientific Name	Status ¹
CATOSTOMIDAE		
River sucker	<i>Carpioles carpio</i>	R
Longnose sucker	<i>Catostomus catostomus</i>	R
White sucker	<i>Catostomus commersoni</i>	D
CENTRARCHIDAE		
Green sunfish	<i>Lepomis cyanellus</i>	D
Bluegill	<i>Lepomis macrochirus</i>	D
Smallmouth bass	<i>Micropterus dolomieu</i>	R
Largemouth bass	<i>Micropterus salmoides</i>	D
Rock Bass	<i>Amblo plites rupestrinis</i>	D
Black crappie	<i>Pomoxis nigromaculatus</i>	D
CYPRINIDAE		
Carp	<i>Cyprinus carpio</i>	D
Plains minnow	<i>Hybognathus placitus</i>	D
Flathead chub	<i>Hybopsis gracilis</i>	R
Common shiner	<i>Luxilus cornutus</i>	D
Golden shiner	<i>Notemigonus crysoleucas</i>	D
Red shiner	<i>Notropis lutrensis</i>	R
Sand shiner	<i>Notropis stramineus</i>	D
Flathead minnow	<i>Pimephales promelas</i>	D
Longnose dace	<i>Rhinichthys cataractae</i>	D
Creek chub	<i>Semotilus atromaculatus</i>	D
CYPRINODONTIDAE		
Plains topminnow	<i>Fundulus sciadicus</i>	D
ESOCIDAE		
Northern pike	<i>Esox lucius</i>	R
HIODONTIDAE		
Goldeye	<i>Hiodon alosoides</i>	R
ICTALURIDAE		
Black bullhead	<i>Ictalurus melas</i>	D
Channel catfish	<i>Ictalurus punctatus</i>	R
Stonecat	<i>Noturus flavus</i>	R
PERCICHTHYIDAE		
White bass	<i>Morone chrysops</i>	D
PERCIDAE		
Walleye	<i>Stizostedion vitreum</i>	D

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



FISH SPECIES LIST

Family/Common Name	Scientific Name	Status ¹
SALMONIDAE		
Rainbow trout	<i>Oncorhynchus mykiss</i>	D
Brown trout	<i>Salmo trutta</i>	D
Brook trout	<i>Salvelinus fontinalis</i>	D

Notes

- ¹ Documentation:
D Documented in the course of the present study.
E Expected to occur - historical or recent evidence.
R Reported by knowledgeable individual(s).

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



Appendix J-6

Macroinvertebrate Species and Relative Abundance

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



COMMUNITY VALUES IN APRIL 1982 AND SEPTEMBER 1996

Sampling Locations		Streams																		Impoundments											
Parameter/ Sample Sampling Method**		E-1	E-2	E-3	S-1	S-2	S-2	S-3	S-4	WC-1	WC-2	W-1	W-2	W-1a*	B-1*	C-1*	SL-1*	1	2	3	4	5	6	7	8	9	10*	11*			
Parameter/ Sample Sampling Method**		P	P	P	S	P	S	S	P	P	P	P	H	D	D	D	P	P	P	P	P	P	P	P	P	P	D	D			
Density (Org./m ²)		13090	1745	3399	706	5729	897	5896	3062	5435	428	352	5818	786	560	1711	840	15	7237	8972	4792	4731	138	980	276	10242	710	689			
Diversity ()	0.49	1.0	1.02	3.18	0.19	1.34	1.15	1.84	1.33	1.16	1.03	1.14	2.10	2.55	3.37	2.95		0	0.93	0.93	1.21	1.06	0	1.60	0	1.69	2.19	2.09			
No. of Taxa	11	9	7	22	5	8	16	9	8	4	3	7	10	11	21	19		1	8	8	9	6	1	7	1	13	9	8			
Community Structure (% Occurrence)																															
Taxon																															
<i>Chironomidae</i>	0.9	17.5	82.0	10.7	98.1	18.0	14.1	45.5	71.8	42.9	47.8	72.4	9.6	5.8	0.6	0.0		0.0	3.8	19.2	12.3	87.7	48.4	100	37.4	33.6	0.0	3.1			
<i>Oligochaeta</i>	0.0	1.8	5.0	3.6	0.8	3.2	0.2	36.0	14.4	50.0	47.8	19.7	1.9	0.0	2.6	0.0		100	89.8	78.3	81.3	3.6	39.1	0.0	39.5	19.1	0.0	0.0			
<i>Ephemeroptera</i>	0.0	0.0	0.0	20.3	0.0	65.2	6.8	0.0	0.0	0.0	0.0	7.9	6.8	36.5	10.7	6.4		0.0	0.0	0.0	0.9	0.0	4.7	0.0	16.6	7.0	4.5	1.6			
<i>Trichoptera</i>	0.0	0.0	0.5	37.1	0.5	0.4	0.5	0.0	0.0	0.0	4.3	0.5	79.5	5.8	0.6	3.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0			
<i>Ceratopogonidae</i>	94.5	56.1	0.0	0.5	0.0	0.4	0.2	1.0	8.7	7.1	0.0	0.3	0.0	0.0	0.0	0.0		0.0	1.7	0.6	0.0	0.0	0.0	0.0	4.2	14.5	0.0	0.0			
<i>Simulidae</i>	0.0	0.0	0.0	8.6	0.0	11.6	76.8	0.0	0.0	0.0	0.0	0.0	28.8	1.9	50.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0				

* September 24, 1996 Sample Stations

** P = Ponar Dredge Sample; S = Surber Sample; H = HESS Sample; D = Dip Net Sample

Org./m² Organisms Per Square Meter

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



Appendix J-7

Threatened and Endangered Species Distribution Maps

All maps from: ACG Nebraska Chapter (ACG). 2007. Nebraska Threatened and Endangered Species Identification Guide. November 1, 2006.

CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



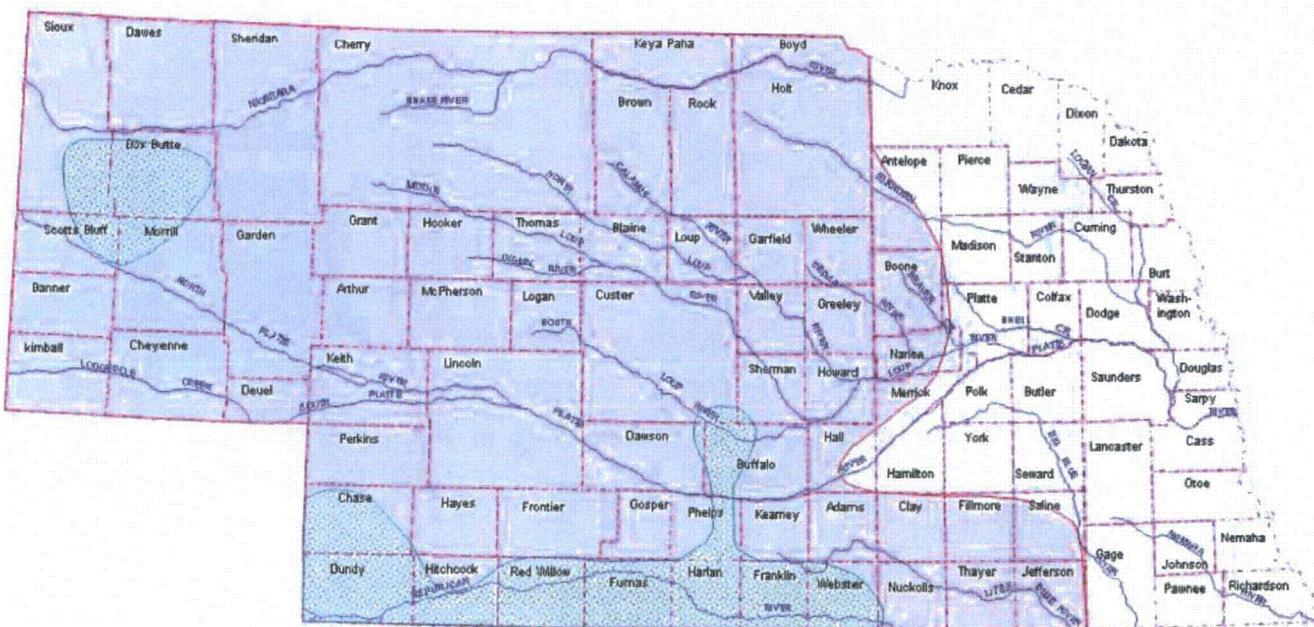
This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



Black-footed Ferret (*Mustela nigripes*) Distribution of Potential Habitat in Nebraska July 2001



POTENTIAL HABITAT (PRAIRIE DOG RANGE)

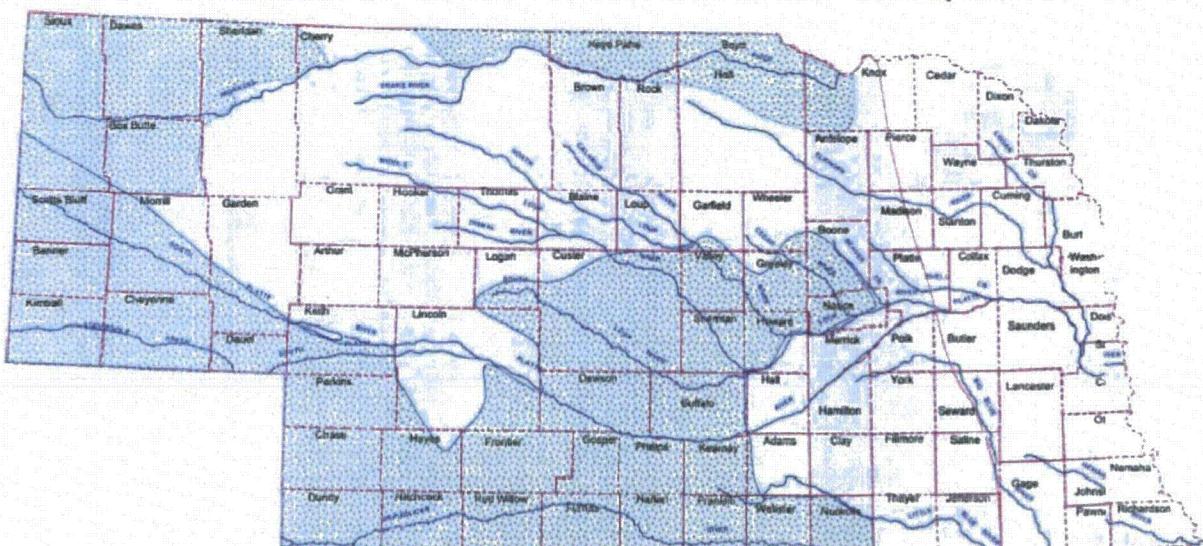
HIGHEST POTENTIAL (PRAIRIE DOG DENSITY)

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



Black-tailed Prairie Dog (*Cynomys ludovicianus*) Distribution of Potential Habitat in Nebraska - February 2002



VERY LOW DENSITY OF COLONIES

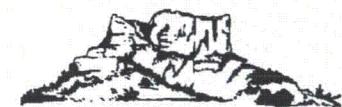


LOW TO MODERATE DENSITY OF COLONIES

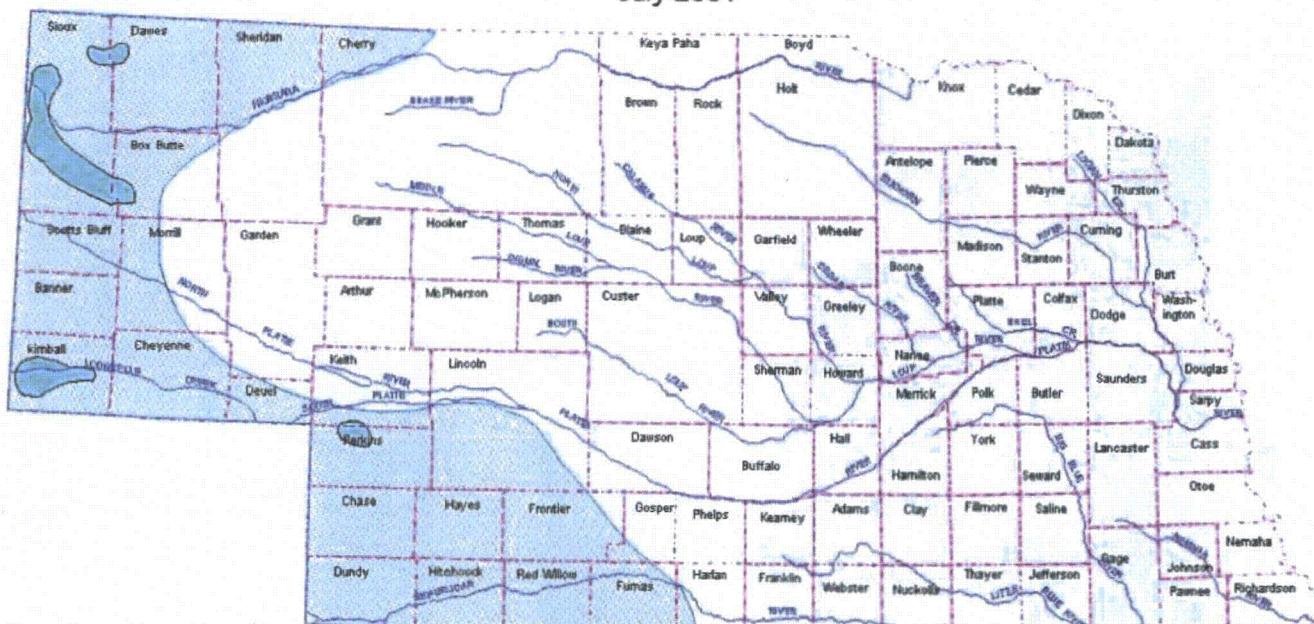
NE T.G. Notice 2
Section II
NRCS-NOVEMR 2002

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



Swift Fox (*Vulpes velox*) Distribution in Nebraska July 2001

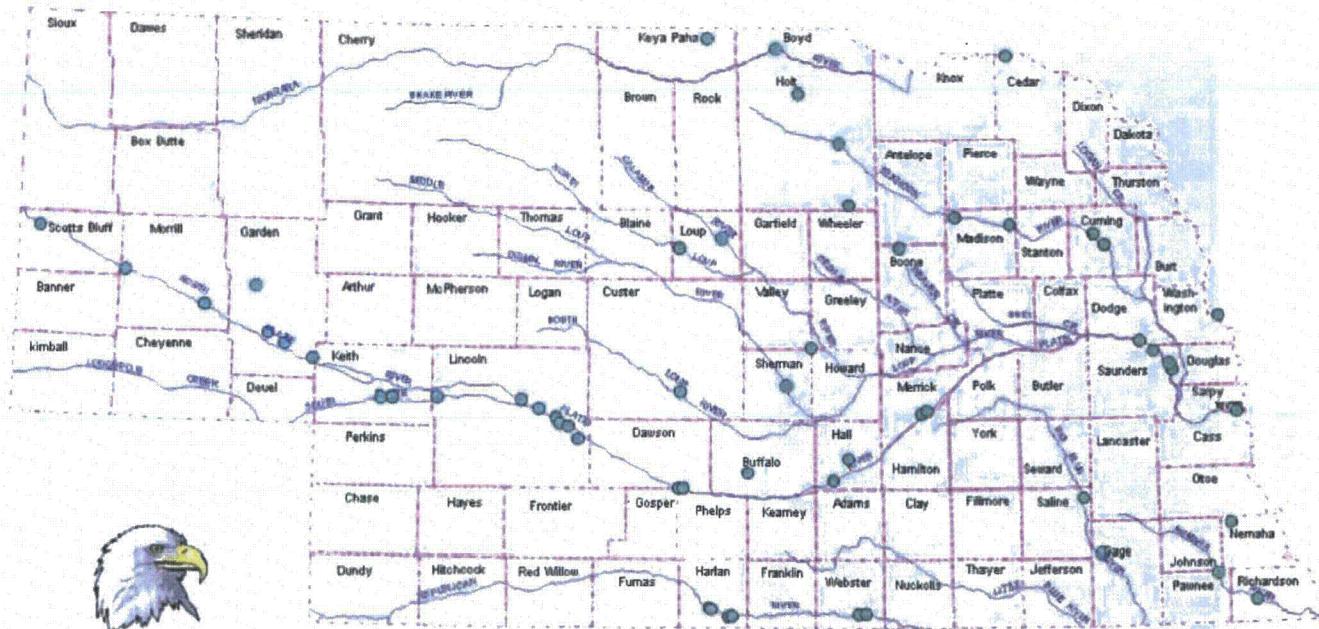


CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



Bald Eagle (*Haliaeetus leucocephalus*) Nesting Distribution in Nebraska July 2001



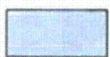
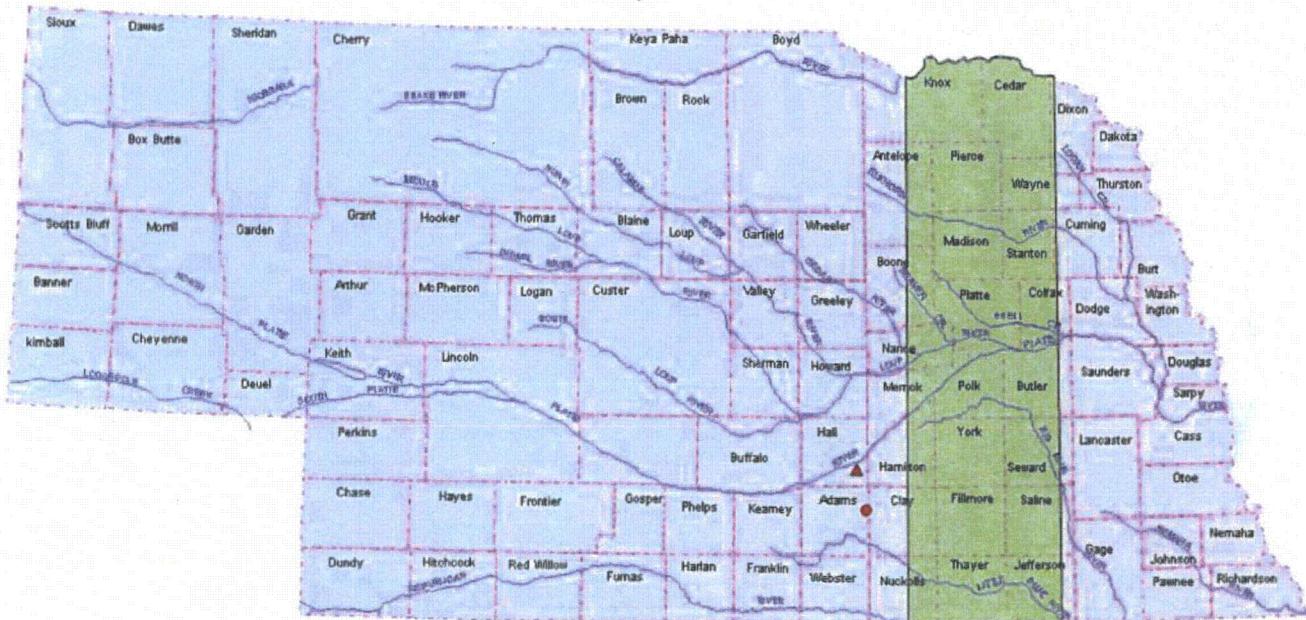
● Nesting Sites Used by Bald Eagle

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



Eskimo Curlew (*Numenius borealis*) Historic Distribution in Nebraska July 2001



GENERAL MIGRATION CORRIDOR



PRIMARY MIGRATION CORRIDOR



1926 CONFIRMED SIGHTING



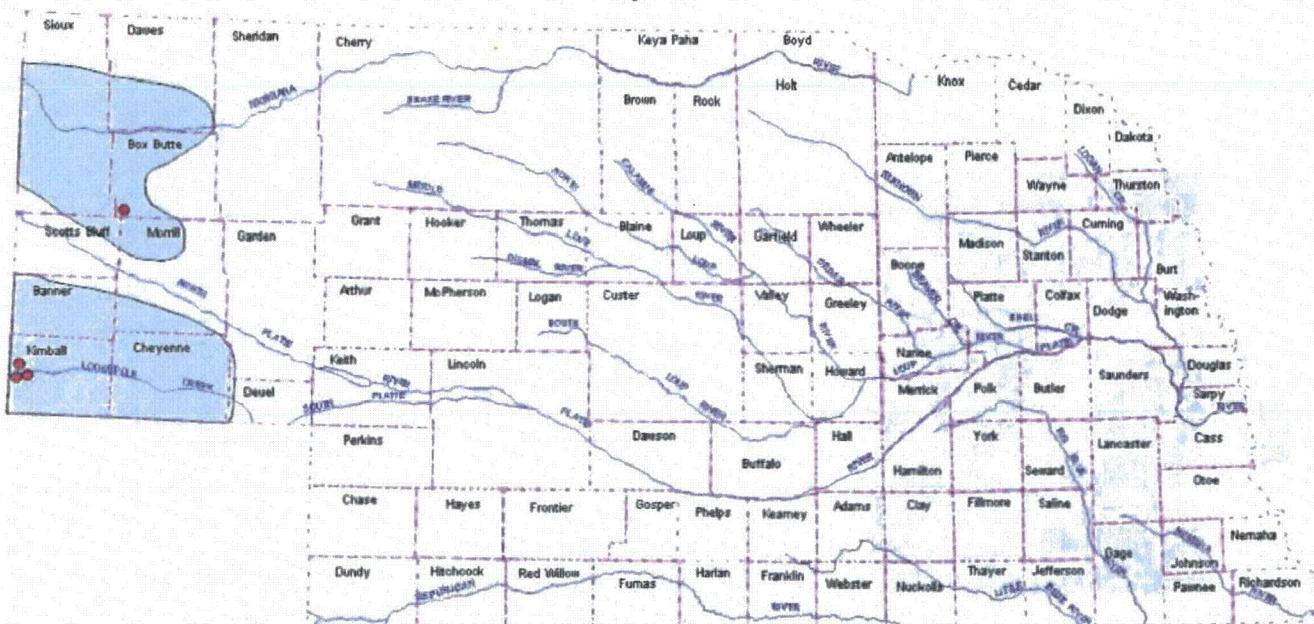
1987 POSSIBLE SIGHTING

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



Mountain Plover (*Charadrius montanus*) Distribution in Nebraska July 2001



POTENTIAL HABITAT

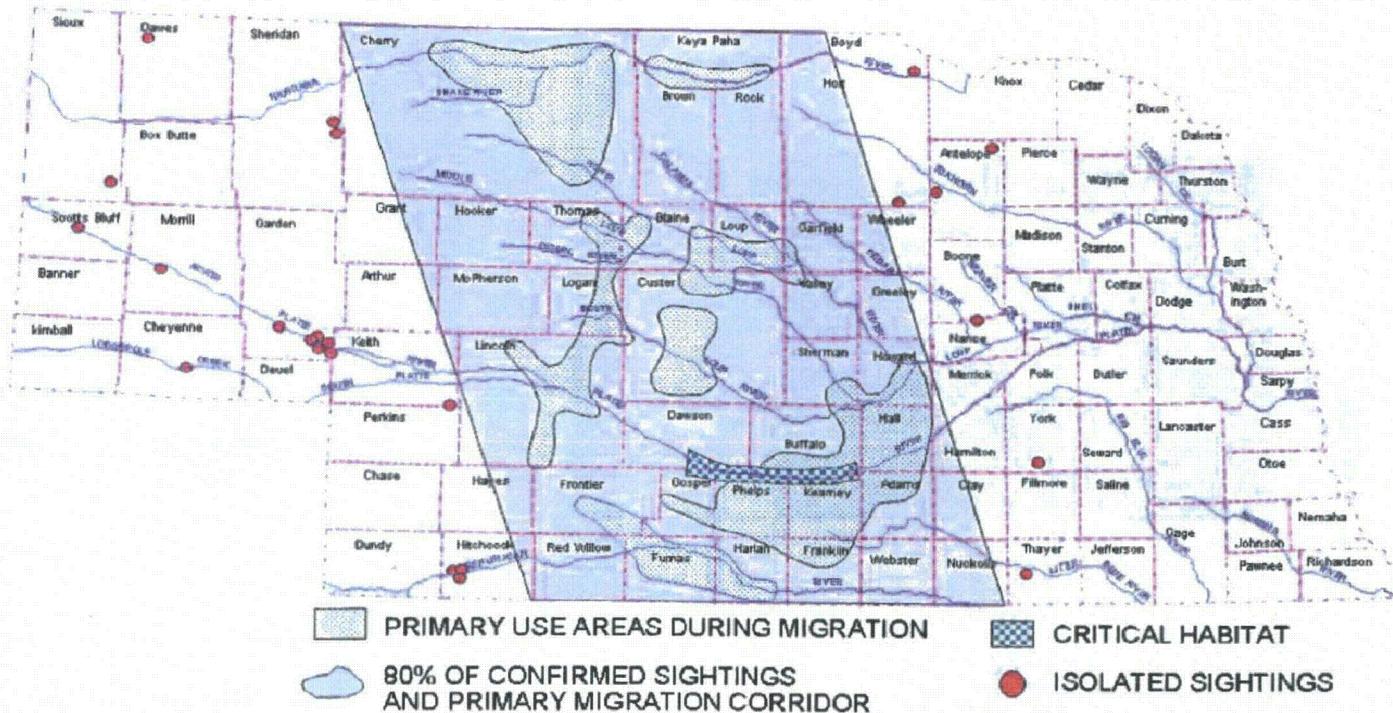
RECENT OBSERVATIONS

CROW BUTTE RESOURCES, INC.

Technical Report Three Crow Expansion Area



Whooping Crane (*Grus americana*) Migration Distribution in Nebraska July 2001



CROW BUTTE RESOURCES, INC.

Technical Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



APPENDIX K

SWIFT FOX SURVEY PROTOCOL

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



The following protocol is a modification of a swift fox protocol included in Mineral Exploration Permit Number NE0210824 (dated August 19, 2009) issued by the Department of Environmental Quality (NDEQ) to Crow Butte Resources, Inc (NDEQ 2009). This permit primarily addresses impacts associated with drilling of boreholes for purposes of mineral exploration. The primary modification of the Appendix 10 protocol is expanding the type of activities potentially impacting the swift fox to include, in addition to drilling of boreholes, uranium in situ satellite project development activities. Satellite "project development" includes construction of satellite facilities (process building and associated storage structures, evaporation ponds, wellfield development (surface preparation, monitor and injection/recovery wells, wellhouses, and trunklines/piping), well workover, boreholes outside of wellfields, and project roadways. Reference to "project development" in this protocol refers to these activities. Project development activities apply to initial construction/wellfield development, operations and decommissioning. Decommissioning includes decontaminating, dismantling, and removing satellite facilities and associated wellfield buildings/equipment/wells and, site reclamation and groundwater restoration.

Swift fox are typically found in topographically flat (slopes <20%) arid regions. In Nebraska, suitable habitat is in the short-grass prairie ecoregion where vegetation is less than 40 cm tall. They can be found in large expanses of prairie as well as prairie intermixed with agriculture. Dens are also found in anthropogenic areas such as near roads and trails, and in agricultural fields, culverts pipes and buildings (Tannerfeldt et al 2003). Swift fox are highly mobile and will use a variety of dens throughout the year. However, a female swift fox with young pups will typically be tied to one den until the pups are old enough to disperse from the den. Swift fox den entrances have a diameter of 17 to 23 cm.

Required Surveys:

CBR will avoid impacting the swift fox species by selecting project development areas that are not in suitable habitat and by avoiding certain locations during specific times of the year. Surveys shall be conducted that are consistent with the Nebraska Game and Parks Commission (NG&PC) standard protocol included in CBR's Mineral Exploration Permit Number NE0210824 as Attachment 1.

The survey form to be used for swift fox surveys is attached to this protocol.

Project development activities will occur within a designated permit boundary. If project development activities within this permit boundary are such that specific protocol requirements (e.g., designated distances from swift fox dens) cannot be avoided as stated in this protocol, CBR will consult with the NDEQ and NG&PC as to the feasibility of alternate actions. No work will be conducted until any such issue has been resolved with the NDEQ and NG&PC.

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Surveyors:

Surveys shall be conducted by a qualified individual who has experience working with the species or has been trained to identify swift fox burrows, dens and sign (scat, tracks, etc.).

Location:

Surveys shall be conducted at project development sites discussed above where suitable habitat is present within the range of the species.

Season:

Surveys shall be conducted year-around in areas of suitable habitat where project development activities are planned.

Timing:

Surveys shall be conducted within one week of initiating project development activities described above under Location.

Survey Technique:

The "denning season" is defined as the period of time when adult swift fox give birth and raise pups. In Nebraska, the swift fox denning season is from April 1 through August 31.

During the denning season, the area that must be surveyed for dens includes project development activities plus an additional 230 meters around the affected areas. When developing wellfields, numerous boreholes will initially be drilled. In this situation, the "affected area" will be the perimeter of the wellfield for the addition of 230 meters to the survey area, as opposed to each drill site. Under such conditions (i.e. work over multiple days or months), only one survey shall be submitted for that period indicating the duration of planned activities in the survey area. During other periods of time (e.g., operations), when individual boreholes are drilled at one time or a workover rig is used for well maintenance, then the additional 230 meters will be applied to the drill site. The above procedures will allow the operator the option of the most effective type of survey to use - wellfield boundary or individual drill site. The satellite facilities will be located within a 30-acre fenced-in site. The swift fox survey will be conducted prior to construction using an additional 230 meters around the fence boundary.

During the non-denning season (September 1 through March 31), the area that must be surveyed for dens includes the project development activities plus an additional 100 meters around the affected areas. When developing wellfields, numerous boreholes will initially be drilled. In this situation, the "affected area" will be the perimeter of the wellfield for the addition of 100 meters to the survey area, as opposed to each drill site. Under such conditions (i.e. work over multiple days or months), only one survey shall be submitted for that period indicating the duration of planned activities in the survey area.

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



During other periods of time (e.g., operations), when individual boreholes are drilled at one time or a workover rig is used for well maintenance, then the additional 100 meters will be applied to the drill site. The above procedures will allow the operator the option of the most effective type of survey to use - wellfield boundary or individual drill site. The satellite facilities will be located within a 30-acre fenced-in site. The swift fox survey will be conducted using an additional 100 meters around the fence boundary.

The survey will consist of walking transects and searching for dens within the survey area. Transects will be no more than 50 meters apart in order to thoroughly cover the area.

An active den may have fresh digging at the entrance, although this is not always the case (Jackson and Choate 2000). Sign, such as scat or tracks, can also be indicate an active den. Swift fox tracks are approximately 2.54 cm wide and 3.8 cm long. Although this is the smallest canid species, tracks can be confused with other species, especially young coyotes. Inactive dens may be overgrown with vegetation, have spider webs over the entrance, or be caving in.

Conservative Measures:

If a potentially active swift fox den is identified, one of two conservation measures should be implemented:

1. The area of project development activities shall be done so activities are at least 230 meters from the den during the denning season, or 100 meters from the den during the non-denning season. For drilling sites, these can be moved to an appropriate distance from the den. A survey around any of these new activities must be conducted.
2. A track or scent station can be set up to determine if the den is being used by swift fox. If track or scent stations indicate swift fox are using the den, then project development activities within a minimum of 100 meters or 230 meters (whichever is appropriate for the season) of the den would be postponed until the den is abandoned. For drilling sites, they can be moved as outlined in #1 above. If track or scent stations indicate swift fox are not using the den, then drilling activities may proceed if there are not any other dens or swift fox within the survey area.

Track Station: Den use can be determined by clearing vegetation around the den and sifting a mixture of fine dry sand and unscented glycerin in a circular patter (~1 m in diameter) around the den hole, approximately 0.5 inches thick. Tracks of the animal using the den can then be identified the following morning as most animals using underground dens are nocturnal and will exit the den at night. Track stations are only good for one night. If the track station cannot be checked the following morning, a new sand and glycerin mixture should be applied to the area around the den hole and surveyed the next morning.

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Scent Station: Swift fox scent station surveys can be conducted any time of the year, although tracks will not show on bare, frozen ground. However, snow can be used as a tracking medium in winter. Scent stations are created by clearing any vegetation in an area and sifting a mixture of fine dry sand and unscented glycerin in a circular pattern (~1 m in diameter) approximately 0.5 inches thick. A plaster tablet soaked in cod/salmon oil mixture (or either) is placed in the center of the station. Scent stations are then placed at locations selected based on the suitability of the surrounding habitat and the presence of certain structures (fence rows, gates, intersections, trails, etc.) that facilitate movement. Weather permitting, they are reset for 3 consecutive days or until at least one station shows sign of swift fox visitation (tracks, feces). Scent stations should not be used within 300 meters of a known or suspected active den as these methods may attract predators.

Survey Reports

A monthly survey report shall be submitted to Nebraska Game and Parks Commission (NG&PC) and Nebraska Department of Environmental Quality (NDEQ) describing all surveys for the swift fox that were conducted during the previous month in connection with project development activities. The survey report shall include the names of the surveyors and their credentials, date and time of the survey, weather conditions, locations surveyed, methods, results, and a discussion of applicable conservation measures implemented. If the swift fox is not identified, the above information must be recorded and included in the report to be submitted at the end of the month. If a species is identified within the survey area, NG&PC must be notified by telephone within twenty-four (24) hours of identification. Written documentation of identification and the survey report shall be submitted with five (5) days of species identification, along with indication of conservation measures. All survey reports shall be submitted no later than the 28th day of the month following the end of the reporting period, even if the species being surveyed are not detected at a particular site. Copies of the reports shall be kept on site for inspection by the NDEQ.

References:

- Jackson, V.I. and J.R. Chaote. 2000. *Dens and den sites of the swift fox, Vulpes velox*. The Southwestern Naturalist 45(2):212:220.
- Nebraska Department of Environmental Quality (NDEQ). 2009. *Mineral Exploration Permit Number NE0210824*. August 19, 2009.
- Tannerfeldt, M., A. Moehrenschlager and A. Angerbjorn. 2003. *Den ecology of swift, kit, and arctic foxes. A review*. In *The Swift Fox: Ecology and conservation of swift foxes in a changing world*, M. Sovada and L. Carbyn editors. Canadian Plains Research Center, University of Regina.



August 2009

Nebraska Department of Environmental Quality

Threatened and Endangered Species Survey Report

Surveyor' Name(s) _____

Credentials: (e.g., who certified the surveyor and date of certification or surveyor's knowledge of surveyed species)

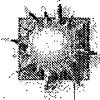
Date of Survey: _____ Time of Survey: _____

Weather Condition:

Temperature: _____ °F

Wind Speed & Direction: _____

Other



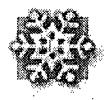
Sunny



Partly Cloudy



Cloudy



Snowing



Raining

Legal Location or GPS coordinates (Lat/Long or UTM) of survey area (include datum, i.e., NAD83, WGS84): _____

County: _____

Vegetative Cover (i.e. corn stubble, plowed field, wetland, short grass prairie 10-20 cm tall)

Methods used to survey affected area (i.e. Mountain Plover Survey Protocol, 5 transects 50 ft apart)

Were any of the following species identified in the area?

Mountain Plover	Yes/No
River Otter	Yes/No
Swift Fox	Yes/No

If so, what conservation measures were taken? (Attach if necessary)

If species is identified, record the location of the species in GPS coordinates. Also indicate locational certainty (i.e. 3 birds were flushed 50 yards NW from this point). Photographs may be sent with survey reports to aid in site description and species identification.

Submit survey reports monthly to:

Nebraska Game & Parks Commission
Attn: Env. Analyst Supervisor
Nebraska Natural Heritage Program
2200 N 33rd Street
Lincoln, NE 68503

Nebraska Dept. of Env. Quality
Attn: Mineral Exploration Program
P.O. Box 98922
Lincoln, NE 68509

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



APPENDIX L

RESTORATION TABLES FOR CURRENT CBR FACILITY MINE UNITS 1 - 10

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



APPENDIX L

RESTORATION TABLES FOR
CURRENT CBR FACILITY MINE
UNITS 1 - 10

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-1 Baseline and Restoration Values for Mine Unit 1

Parameter	Groundwater Standard ²	MU-1 Baseline	MU-1 Standard Deviation	MU-1 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	<0.372	N/A	10.0
Arsenic (mg/L)	0.05	<0.00214	N/A	0.05
Barium (mg/L)	1.0	<0.1	N/A	1.0
Cadmium (mg/L) ¹	0.01	<0.00644	N/A	0.005 ¹
Chloride (mg/L)	250.0	203.9	38	250.0
Copper (mg/L)	1.0	<0.017	N/A	1.0
Fluoride (mg/L)	4.0	0.686	0.04	4.0
Iron (mg/L)	0.3	<0.0441	N/A	0.3
Mercury (mg/L)	0.002	<0.001	N/A	0.002
Manganese (mg/L)	0.05	<0.011	N/A	0.05
Molybdenum (mg/L)	1.0	<0.0689	N/A	1.0
Nickel (mg/L)	0.15	<0.0340	N/A	0.15
Nitrate (mg/L)	10.0	<0.050	N/A	10.0
Lead (mg/L)	0.05	0.0315	N/A	0.05
Radium (pCi/L)	5.0	229.7	177.1	584.0
Selenium (mg/L)	0.01	<0.00323	N/A	0.05
Sodium (mg/L)	N/A	412	19.2	4120
Sulfate (mg/L)	250.0	356.2	9.4	375
Uranium (mg/L)	5.0	0.0922	0.089	5.0
Vanadium (mg/L)	0.2	<0.0663	N/A	0.2
Zinc (mg/L)	5.0	<0.036	N/A	5.0
pH (Std. Units)	6.5 - 8.5	8.46	0.2	6.5 – 8.5
Calcium (mg/L)	N/A	12.5	3.2	125.0
Total Carbonate (mg/L)	N/A	351	31.1	585
Potassium (mg/L)	N/A	12.5	1.5	125.0
Magnesium (mg/L)	N/A	3.2	0.8	32.0
TDS (mg/L)	N/A	1170.2	47.6	1170.2

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-2 Baseline and Restoration Values for Mine Unit 2

Parameter	Groundwater Standard ²	MU-2 Baseline	MU-2 Standard Deviation	MU-2 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	0.37	0.07	10.0
Arsenic (mg/L)	0.05	<0.001	N/A	0.05
Barium (mg/L)	1.0	<0.1	N/A	1.0
Cadmium (mg/L) ¹	0.005	<0.007	N/A	0.005
Chloride (mg/L)	250.0	208.6	30.8	250.0
Copper (mg/L)	1.0	<0.013	N/A	1.0
Fluoride (mg/L)	4.0	0.67	0.04	4.0
Iron (mg/L)	0.3	<0.045	N/A	0.3
Mercury (mg/L)	0.002	<0.001	N/A	0.002
Manganese (mg/L)	0.05	<0.01	N/A	0.05
Molybdenum (mg/L)	1.0	<0.073	N/A	1.0
Nickel (mg/L)	0.15	<0.037	N/A	0.15
Nitrate (mg/L)	10.0	<0.039	N/A	10.0
Lead (mg/L)	0.05	<0.035	N/A	0.05
Radium (pCi/L)	5.0	234.5	411.8	1058.0
Selenium (mg/L)	0.05	<0.001	N/A	0.05
Sodium (mg/L)	N/A	410.8	18.2	4108
Sulfate (mg/L)	250.0	348.2	10.3	369.0
Uranium (mg/L)	5.0	0.046	0.037	5.0
Vanadium (mg/L)	0.2	<0.07	N/A	0.2
Zinc (mg/L)	5.0	<0.026	N/A	5.0
pH (Std. Units)	6.5 - 8.5	8.32	0.2	6.5 – 8.5
Calcium (mg/L)	N/A	13.4	2.4	134.0
Total Carbonate (mg/L)	N/A	366.9	13.3	585.0
Potassium (mg/L)	N/A	12.6	2.5	126.0
Magnesium (mg/L)	N/A	3.5	0.4	35.0
TDS (mg/L)	N/A	1170.4	41	1170.4

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-3 Baseline and Restoration Values for Mine Unit 3

Parameter	Groundwater Standard ²	MU-3 Baseline	MU-3 Standard Deviation	MU-3 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	<0.329	N/A	10.0
Arsenic (mg/L)	0.05	<0.001	N/A	0.05
Barium (mg/L)	1.0	<0.1	N/A	1.0
Cadmium (mg/L) ¹	0.005	<0.01	N/A	0.005
Chloride (mg/L)	250.0	197.6	16.7	250.0
Copper (mg/L)	1.0	<0.0108	N/A	1.0
Fluoride (mg/L)	4.0	0.719	0.05	4.0
Iron (mg/L)	0.3	<0.05	N/A	0.3
Mercury (mg/L)	0.002	<0.001	N/A	0.002
Manganese (mg/L)	0.05	<0.01	N/A	0.05
Molybdenum (mg/L)	1.0	<0.1	N/A	1.0
Nickel (mg/L)	0.15	<0.05	N/A	0.15
Nitrate (mg/L)	10.0	<0.0728	N/A	10.0
Lead (mg/L)	0.05	<0.05	N/A	0.05
Radium (pCi/L)	5.0	165	222.5	611.0
Selenium (mg/L)	0.05	<0.00115	N/A	0.05
Sodium (mg/L)	N/A	428	27.6	4280
Sulfate (mg/L)	250.0	377.0	13.4	404.0
Uranium (mg/L)	5.0	0.115	0.158	5.0
Vanadium (mg/L)	0.2	<0.1	N/A	0.2
Zinc (mg/L)	5.0	<0.0131	N/A	5.0
pH (Std. Units)	6.5 - 8.5	8.37	0.3	6.5 - 8.5
Calcium (mg/L)	N/A	13.3	3.1	133.0
Total Carbonate (mg/L)	N/A	358.7	24.8	592.0
Potassium (mg/L)	N/A	13.9	4.0	139.0
Magnesium (mg/L)	N/A	3.5	0.9	35.0
TDS (mg/L)	N/A	1183.0	47.4	1183.0

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-4 Baseline and Restoration Values for Mine Unit 4

Parameter	Groundwater Standard ²	MU-4 Baseline	MU-4 Standard Deviation	MU-4 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	0.288	0.08	10.0
Arsenic (mg/L)	0.05	<0.00209	N/A	0.05
Barium (mg/L)	1.0	<0.1	N/A	1.0
Cadmium (mg/L) ¹	0.005	<0.01	N/A	0.005
Chloride (mg/L)	250.0	217.5	34.9	250.0
Copper (mg/L)	1.0	<0.0114	N/A	1.0
Fluoride (mg/L)	4.0	0.745	0.05	4.0
Iron (mg/L)	0.3	<0.0504	N/A	0.3
Mercury (mg/L)	0.002	<0.001	N/A	0.002
Manganese (mg/L)	0.05	<0.01	N/A	0.05
Molybdenum (mg/L)	1.0	<0.1	N/A	1.0
Nickel (mg/L)	0.15	<0.05	N/A	0.15
Nitrate (mg/L)	10.0	<0.114	N/A	10.0
Lead (mg/L)	0.05	<0.05	N/A	0.05
Radium (pCi/L)	5.0	154.3	171.5	496.0
Selenium (mg/L)	0.05	<0.00244	N/A	0.05
Sodium (mg/L)	N/A	416.6	27.8	4166
Sulfate (mg/L)	250.0	337.2	19.3	375.0
Uranium (mg/L)	5.0	<0.122	N/A	5.0
Vanadium (mg/L)	0.2	<0.0984	N/A	0.2
Zinc (mg/L)	5.0	<0.0143	N/A	5.0
pH (Std. Units)	6.5 - 8.5	8.68	0.3	6.5 – 9.28
Calcium (mg/L)	N/A	11.2	2.9	112.0
Total Carbonate (mg/L)	N/A	374.4	28	610.0
Potassium (mg/L)	N/A	16.7	4.7	167.0
Magnesium (mg/L)	N/A	2.8	0.8	28.0
TDS (mg/L)	N/A	1221.1	73.5	1221.1

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.



Environmental Report Three Crow Expansion Area

Appendix L-5 Baseline and Restoration Values for Mine Unit 5

Parameter	Groundwater Standard ²	MU-5 Baseline	MU-5 Standard Deviation	MU-5 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	0.28	0.05	10.0
Arsenic (mg/L)	0.05	<0.001	N/A	0.05
Barium (mg/L)	1.0	<0.10	N/A	1.0
Cadmium (mg/L) ¹	0.005	<0.01	N/A	0.005
Chloride (mg/L)	250.0	191.9	7.9	250.0
Copper (mg/L)	1.0	<0.01	N/A	1.0
Fluoride (mg/L)	4.0	0.64	0.07	4.0
Iron (mg/L)	0.3	<0.05	N/A	0.3
Mercury (mg/L)	0.002	<0.001	N/A	0.002
Manganese (mg/L)	0.05	<0.01	N/A	0.05
Molybdenum (mg/L)	1.0	<0.10	N/A	1.0
Nickel (mg/L)	0.15	<0.05	N/A	0.15
Nitrate (mg/L)	10.0	<0.1	N/A	10.0
Lead (mg/L)	0.05	<0.05	N/A	0.05
Radium (pCi/L)	5.0	166.0	184.6	535.0
Selenium (mg/L)	0.05	<0.002	N/A	0.05
Sodium (mg/L)	N/A	397.6	14.4	3976
Sulfate (mg/L)	250.0	364.5	10.5	385.0
Uranium (mg/L)	5.0	0.072	0.056	5.0
Vanadium (mg/L)	0.2	<0.10	N/A	0.2
Zinc (mg/L)	5.0	<0.02	N/A	5.0
pH (Std. Units)	6.5 - 8.5	8.5	0.1	6.5 – 8.5
Calcium (mg/L)	N/A	12.6	1.8	126.0
Total Carbonate (mg/L)	N/A	372	13.0	590.0
Potassium (mg/L)	N/A	11.5	1.2	115.0
Magnesium (mg/L)	N/A	3.4	0.4	34.0
TDS (mg/L)	N/A	1179.5	22.5	1202.0

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-6 Baseline and Restoration Values for Mine Unit 6

Parameter	Groundwater Standard ²	MU-6 Baseline	MU-6 Standard Deviation	MU-6 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	0.32	0.05	10.0
Arsenic (mg/L)	0.05	0.002	N/A	0.05
Barium (mg/L)	1.0	0.100	N/A	1.0
Cadmium (mg/L) ¹	0.005	0.009	N/A	0.005
Chloride (mg/L)	250.0	206	15.4	250.0
Copper (mg/L)	1.0	0.012	N/A	1.0
Fluoride (mg/L)	4.0	0.65	0.03	4.0
Iron (mg/L)	0.3	0.050	N/A	0.3
Mercury (mg/L)	0.002	0.001	N/A	0.002
Manganese (mg/L)	0.05	0.010	N/A	0.05
Molybdenum (mg/L)	1.0	0.102	N/A	1.0
Nickel (mg/L)	0.15	0.050	N/A	0.15
Nitrate (mg/L)	10.0	0.1	N/A	10.0
Lead (mg/L)	0.05	0.050	N/A	0.05
Radium (pCi/L)	5.0	80.6	121.9	325
Selenium (mg/L)	0.05	0.001	N/A	0.05
Sodium (mg/L)	N/A	400	12.8	4000
Sulfate (mg/L)	250.0	361	14.6	390
Uranium (mg/L)	5.0	0.133	0.212	5.0
Vanadium (mg/L)	0.2	0.098	N/A	0.2
Zinc (mg/L)	5.0	0.011	N/A	5.0
pH (Std. Units)	6.5 - 8.5	8.6	0.2	6.5 – 9.0
Calcium (mg/L)	N/A	12.8	2.3	128
Total Carbonate (mg/L)	N/A	367.1	22.9	596
Potassium (mg/L)	N/A	11.9	1.7	119
Magnesium (mg/L)	N/A	3.2	0.7	32
TDS (mg/L)	N/A	1192	28.1	1220

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-7 Baseline and Restoration Values for Mine Unit 7

Parameter	Groundwater Standard ²	MU-7 Baseline	MU-7 Standard Deviation	MU-7 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	0.42	0.08	10.0
Arsenic (mg/L)	0.05	0.001	N/A	0.05
Barium (mg/L)	1.0	0.10	N/A	1.0
Cadmium (mg/L) ¹	0.005	0.007	N/A	0.005
Chloride (mg/L)	250.0	198	22.6	250.0
Copper (mg/L)	1.0	0.01	N/A	1.0
Fluoride (mg/L)	4.0	0.70	0.05	4.0
Iron (mg/L)	0.30	0.05	N/A	0.30
Mercury (mg/L)	0.002	0.001	N/A	0.002
Manganese (mg/L)	0.05	0.01	N/A	0.05
Molybdenum (mg/L)	1.00	0.10	N/A	1.00
Nickel (mg/L)	0.15	0.05	N/A	0.15
Nitrate (mg/L)	10.0	0.1	N/A	10.0
Lead (mg/L)	0.05	0.05	N/A	0.05
Radium (pCi/L)	5.0	142	148.0	438
Selenium (mg/L)	0.05	0.004	N/A	0.05
Sodium (mg/L)	N/A	387	21.6	3,870
Sulfate (mg/L)	250.0	346	20.1	386
Uranium (mg/L)	5.0	0.110	0.138	5.0
Vanadium (mg/L)	0.2	0.10	N/A	0.2
Zinc (mg/L)	5.0	0.01	N/A	5.0
pH (Std. Units)	6.5 - 8.5	8.6	0.3	6.5 - 9.2
Calcium (mg/L)	N/A	12.2	2.6	122
Total Carbonate (mg/L)	N/A	356	N/A	588
Potassium (mg/L)	N/A	12.9	3.0	129
Magnesium (mg/L)	N/A	3.2	0.7	32
TDS (mg/L)	N/A	1,176	40.7	1,217

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-8 Baseline and Restoration Values for Mine Unit 8

Parameter	Groundwater Standard ²	MU-8 Baseline	MU-8 Standard Deviation	MU-8 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	0.682	0.222	10.0
Arsenic (mg/L)	0.05	0.002	0.001	0.05
Barium (mg/L)	1.0	0.099	0.005	1.0
Cadmium (mg/L) ¹	0.005	0.005	N/A	0.005
Chloride (mg/L)	250	196	53.8	250
Copper (mg/L)	1.0	0.01	N/A	1.0
Fluoride (mg/L)	4.0	0.638	0.048	4.0
Iron (mg/L)	0.30	0.135	0.086	0.30
Mercury (mg/L)	0.002	0.001	N/A	0.002
Manganese (mg/L)	0.05	0.01	N/A	0.05
Molybdenum (mg/L)	1.0	0.093	0.023	1.00
Nickel (mg/L)	0.15	0.049	0.003	0.15
Nitrate (mg/L)	10.0	0.2	N/A	10.0
Lead (mg/L)	0.05	0.049	0.003	0.05
Radium (pCi/L)	5.0	124.4	151.8	428
Selenium (mg/L)	0.05	0.004	N/A	0.05
Sodium (mg/L)	N/A	416.8	41.8	4,168
Sulfate (mg/L)	250	312	33	378
Uranium (mg/L)	5.0	0.188	0.140	5.0
Vanadium (mg/L)	0.2	0.127	0.122	0.2
Zinc (mg/L)	5.0	0.013	0.008	5.0
pH (Std. Units)	6.5 - 8.5	8.67	0.37	6.5 – 9.41
Calcium (mg/L)	N/A	12.3	3.5	123
Total Carbonate (mg/L)	N/A	377	15.6	569
Potassium (mg/L)	N/A	11.8	3.2	117.8
Magnesium (mg/L)	N/A	2.7	0.92	27.1
TDS (mg/L)	N/A	1,137	97.4	1,234

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-9 Baseline and Restoration Values for Mine Unit 9

Parameter	Groundwater Standard ²	MU-9 Baseline	MU-9 Standard Deviation	MU-9 NDEQ Restoration Value ³
Ammonium (mg/L)	10.0	0.40	0.05	10.0
Arsenic (mg/L)	0.05	0.001	0.000	0.05
Barium (mg/L)	1.0	0.1	0.0	1.0
Cadmium (mg/L) ¹	0.005	0.005	0.000	0.005
Chloride (mg/L)	250	203	13	250
Copper (mg/L)	1.0	0.01	0.00	1.0
Fluoride (mg/L)	4.0	0.8	0.0	4.0
Iron (mg/L)	0.3	0.04	0.01	0.3
Mercury (mg/L)	0.002	0.001	0.000	0.002
Manganese (mg/L)	0.05	0.01	0.00	0.05
Molybdenum (mg/L)	1.0	0.1	0.0	1.0
Nickel (mg/L)	0.15	0.05	0.00	0.15
Nitrate (mg/L)	10.0	0.06	0.01	10.0
Lead (mg/L)	0.05	0.05	0.00	0.05
Radium (pCi/L)	5.0	164	238	640
Selenium (mg/L)	0.05	0.003	0.001	0.05
Sodium (mg/L)	N/A	380	11	3,800
Sulfate (mg/L)	250	320	15	350
Uranium (mg/L)	5.0	0.1	0.24	5.0
Vanadium (mg/L)	0.2	0.1	0.0	0.2
Zinc (mg/L)	5.0	0.01	0.00	5.0
pH (Std. Units)	6.5 - 8.5	8.35	0.30	6.5 – 9.41
Calcium (mg/L)	N/A	13.6	4.6	136
Total Carbonate (mg/L)	N/A	383	14	595
Potassium (mg/L)	N/A	13.9	3.0	139
Magnesium (mg/L)	N/A	3.5	1.2	35.0
TDS (mg/L)	N/A	1,152	38	1,190

¹ Standard for Cadmium lowered in modification to UIC permit dated March 9, 2001 following NDEQ approval of Mine Unit 1 restoration.

² Title 118 numerical standards in effect at the time the Notice of Intent was filed with the NDEQ.

³ Restoration values based on Title 118 numerical standards and well field averages at the time the Notice of Intent was submitted to the NDEQ.

N/A = Not Applicable

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix L-10 Baseline Well Restoration Table Mine Unit 10

Parameter	Units	Groundwater Standard	Wellfield Average	Standard Deviation	NDEQ Restoration Value
Ammonia (NH ₄ as N)	mg/L	10.0	0.34	0.07	10.0
Arsenic (As)	mg/L	0.010	0.001	0.001	0.010
Barium (Ba)	mg/L	2.0	0.1	0.0	2.0
Cadmium (Cd)	mg/L	0.005	0.005	0.000	0.005
Calcium (Ca)	mg/L	---	11.8	2.6	118.0
Chloride (Cl)	mg/L	250	185	14	250
Copper (Cu)	mg/L	1.3	0.01	0.01	1.3
Fluoride (F)	mg/L	4.0	0.72	0.10	4.0
Iron (Fe)	mg/L	0.3	0.03	0.01	0.3
Lead (Pb)	mg/L	0.015	0.001	0.0	0.015
Magnesium (Mg)	mg/L	---	3.4	0.7	34.0
Managanese (Mn)	mg/L	0.05	0.01	0.0	0.05
Mercury (Hg)	mg/L	0.002	0.001	0.0	0.002
Molybdenum (Mo)	mg/L	1.0	0.1	0.0	1.0
Nickel (Ni)	mg/L	0.15	0.05	0.0	0.15
Nitrite + Nitrate as N (NO ₃ + NO ₂) ¹	mg/L	10.0	0.1	0.0	10.0
pH	Std. Units	6.5 - 8.5	8.51	0.19	6.5 - 8.89
Potassium (K)	mg/L	---	10.1	1.6	101
Radium-226	pCi/L	5.0	87.3	161.0	409.3
Selenium (Se)	mg/L	0.05	0.003	0.002	0.05
Sodium (Na)	mg/L	---	388	12	3880
Sulfate (SO ₄)	mg/L	250.0	329	25	379
Total Carbonate (CO ₃ + HCO ₃) ²	mg/L	---	394	15	550.5
Total Dissolved Solids	mg/L	---	1101	26	1127
Uranium (U)	mg/L	0.03	0.0378	0.0351	0.108
Vanadium (V)	mg/L	0.2	0.1	0.0	0.2
Zinc (Zn)	mg/L	5.0	0.01	0.01	5.0

¹ Nitrate was reported by the lab as NO₃ + NO₂ instead of NO₃ as required in the permit. However, only two samples, well 4024 collected 6/09/06 and well CM8-6 collected 5/02/02, were above the detection limits. The restoration value is 10.0 mg/L while the average is 0.1 mg/L. Therefore, including NO₂ has no bearing on determining the restoration value. Nitrite, NO₂, was also analyzed for and all samples were below the detection limit of 0.10 mg/L.

² Total carbonate = alkalinity as CaCO₃ x 1.2

Standard formulas were used to calculate the average and standard deviation but the true values, especially for the standard deviation, are most likely significantly smaller than shown. This results in a conservative estimate of the standard deviation.

--- = no NDEQ standard

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



APPENDIX M

MILDOS-AREA MODELING

RESULTS

FOR

THREE CROW EXPANSION AREA

(TCEA)

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Environmental Report

Three Crow Expansion Area



Contents

- Appendix M-1 Site Specific Information for TCEA
- Appendix M-2 Source Coordinates for TCEA
- Appendix M-3 Individual Receptor Location Data
- Appendix M-4 Calculations of Annual Radon Emissions for TCEA
- Appendix M-5 Miscellaneous Data
- Appendix M-6 MILDOS-AREA Computer Run No. 1 for 38 Receptors
- Appendix M-7 MILDOS-AREA Computer Run No. 2 for 8 Receptors

CROW BUTTE RESOURCES, INC.

Environmental Report

Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix M-1 Site Specific Information for Three Crow Expansion Area

Parameter	Value
Average ore quality, U ₃ O ₈ , in ore body	0.22 percent
Ore radon activity, assuming equilibrium with U-238	620 pCi/g
Operating days per year (plant factor)	365 days
Dimensions of ore body	
Area per year to be mined	20 acres
Average thickness of body	5 ft
Average production flow rate	6000 gpm
Formation porosity	29 percent
Rock density	1.89 g/cm ³
Restoration flow rate	1500 gpm
Restoration Residence time	35 days
Production cell parameters	
Residence time	7 days
Type of cell pattern	variable
Source stack description (Main)	
Stack height	15.9 m
Stack diameter	0.30 m
Stack velocity	11 m/sec
Source stack description (Satellite)	
Stack height	10 m
Stack diameter	0.2
Stack velocity	10 m/sec

ft/ft² = feet/square feet

g/cm³ = grams per cubic centimeter

gpm = gallons per minute

lpm = liters per minute

m = meter

m²/sce = meters squared per second

pCi/g = picoCuries per gram

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix M-2 Source Coordinates for Three Crow Expansion Area

Source	East (km)	North (km)	Rn-222 (Curies)
1. Plant Vent	0.00	0.00	4300
2. North Trend Satellite Plant Vent	-5.30	9.60	342
3. MU-2-4 (restoration)	-0.30	0.16	350
4. MU-5	0.0	0.74	253
5. MU-6&8	1.92	-1.20	506
6. MU 7&9	0.00	-0.74	506
7. North Trend Wellfield	-5.30	9.60	1320
8 Three Crow Satellite Plant	-9.6	-0.73	372
9. Three Crow Wellfield	-7.98	-1.38	1675

CROW BUTTE RESOURCES, INC.



Environmental Report Three Crow Expansion Area

Appendix M-3 Individual Receptor Location Data

Location	X (km)	Y (km)	Distance (km)
1. R1	-1.21	-0.44	1.29
2. R2	-1.95	1.95	2.76
3. R3	-1.89	2.71	3.30
4. R4	-3.34	2.80	4.36
5. R5	-3.57	3.99	5.35
6. CRAWFORD	-4.39	4.45	6.25
7. R7	-1.99	3.96	4.43
8. R8	-1.99	3.60	4.11
9. R9	-1.57	3.23	3.59
10. R10	-1.16	2.80	3.03
11. R11	-1.78	2.77	3.29
12. R12	-0.30	2.35	2.35
13. R13	0.03	1.49	1.49
14. R14	0.51	0.98	1.10
15. R15	0.52	0.34	0.62
16. R16	1.31	0.30	1.34
17. R17	1.31	-0.34	1.35
18. EHLERS	0.73	-0.06	0.73
19. GIBBONS	0.73	0.73	1.03
20. STETSON	-0.46	1.22	1.30
21. KNODE	-1.89	2.68	3.28
22. Brott	-1.37	1.34	1.92
23. SP 1	0.73	0.15	0.75
24. SP 2	0.67	0.58	0.89
25. SP 3	0.67	0.91	1.13
26. McDOWELL	-2.16	4.36	4.87
27. TAGGART	-1.89	4.45	4.83
28. FRANEY	-0.98	4.76	4.86
29. BUNCH	1.01	4.27	4.39
30. DYER	-2.44	0.55	2.50
31. NT-1	-3.97	11.33	12.01
32. NT-2	-4.12	8.93	9.83
33. NT-3	-4.75	7.87	9.19

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix M-3 Individual Receptor Location Data

Location	X (km)	Y (km)	Distance (km)
34. NT-4	-5.82	6.69	8.87
35. NT-5	-4.61	6.76	8.18
36. NT-6	-7.20	11.65	13.70
37. NT-7	-8.25	9.86	12.86
38. NT-8	-0.44	2.76	2.79
1. Three Crow-1	-8.20	-1.16	8.3
2. Three Crow-2	-11.30	-0.57	11.3
3.Three Crow-3	-6.49	-1.95	6.8
4.Three Crow-4	-5.20	1.10	5.3
5.Three Crow-5	-11.7	-3.96	12.4
6.Three Crow-6	-9.52	2.72	9.9
7.Three Crow-7	-3.31	1.03	3.5
8.Three Crow-8	-8.26	-4.95	9.6

CROW BUTTE RESOURCES, INC.



Environmental Report Three Crow Expansion Area

Appendix M-4 Calculations of Annual Radon Emissions for TCEA

1. To calculate radon release from leaching, assuming that U-238 is in equilibrium with its decay products:

$$\text{Ci/m}^3 = (620 \text{ pCi/g ore}) \times (1.89 \text{ g/cm}^3) \times 0.2 \times (0.71/0.29) \times 10^{-6} = 5.7 \times 10^{-4} \text{ Ci/m}^3$$

Where:
0.2 = Emanating Power
0.71 = 1 - Porosity
0.29 = Porosity
1.89 = Rock Density

The yearly release is then:

$$5.7 \times 10^{-4} \text{ Ci/m}^3 \times 22,712 \text{ lpm} \times (0.72) \times 365 \text{ d/yr} \times 1.44 = 4946 \text{ Ci/yr}$$

Where:
17034 = liters per minute (Production Rate)
 \in = $1-e^{-(\lambda t)}$
 \in = $1-e^{-(0.1812)(7d)}$
 \in = $1-e^{-(0.28)}$
 \in = 0.72
1.44 = constant
365 = operating time

2. The radon release from start-up is given by:

$$5.7 \times 10^{-4} \text{ Ci/m}^3 \times 20 \text{ acres} \times 4074 \text{ m}^2/\text{acre} \times 1.5 \text{ m} \times 0.29 = 20 \text{ Ci/yr}$$

Where:
4074 = m^2/acre
1.52 = Thickness of orebody in meters
0.29 = Porosity

The total release of radon from the start-up solution and production lixiviant solution is:

Start-up solution	20 Ci/yr
Production	<u>4946 Ci/yr</u>
	4966 Ci/yr

3. The radon release from restoration is given by:

$$5.7 \times 10^{-4} \text{ Ci/m}^3 \times 5678 \text{ lpm} \times 365 \text{ d/yr} \times (0.99) \times 1.44 = 1711 \text{ Ci/yr}$$
$$+ 20 \text{ Ci/yr (start-up)} = 1731 \text{ Ci/yr}$$

Where:
1893 = Restoration flow in liters per minute
 \in = $1-e^{-(\lambda t)}$

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix M-4 Calculations of Annual Radon Emissions for TCEA

35	=	Restoration Residence time (t) in days
ϵ	=	$1-e^{-(0.181)(35)}$
ϵ	=	0.99
1.44	=	constant

The total release from this in-situ satellite mining operation is then:

Production (Ci/yr) (includes start-up)	4966
Restoration (Ci/yr) (includes start-up)	1731
	6697 Ci/yr

4. Actual Radon Release to the Environment

The 6000 gpm of production flow at the TCEA satellite plant processed by pressurized downflow ion exchange columns will release only a small fraction of the contained radon to the environment. It is expected that 25 percent of the radon will be released in the wellfield. This release is:

$$\text{Wellfield Release} = 4966 \times 0.25 = 1242 \text{ Ci/yr}$$

The remainder of the radon will go to the process plant where a conservative estimate of 10 percent of the radon is released via the plant vent and resin transfers. The estimated radon released is:

$$\begin{aligned} 4966 \text{ Ci/yr} - 1242 \text{ Ci/yr (Wellfield)} &= 3724 \text{ Ci/yr} \\ 3724 \text{ Ci/yr} \times 0.1 \text{ (plant loss)} &= 372 \text{ Ci/yr released from plant vent} \end{aligned}$$

The radon released during production is 1242 Ci/yr from the Wellfield and 372 Ci/yr from the plant vent for a total estimated release of 1614 Ci/yr.

During restoration, 1500 gpm of recovered water will be processed by pressurized downflow ion exchange (IX) columns. Only a small fraction of the contained radon will be released during ion exchange. The estimated release of the source term of 1731 Ci of radon/yr (including start-up) is as follows:

- 25 percent of the 1731 Ci/yr will be released in the Wellfield = 433 Ci/yr
- Assuming annual release from startup, production, and restoration, the total wellfield release rate is approximately $1242 \text{ Ci/yr} + 433 \text{ Ci/yr} = 1675 \text{ Ci/yr}$

Sources for the main plant area were determined in a similar manner.

CROW BUTTE RESOURCES, INC.

Environmental Report Three Crow Expansion Area



Appendix M-5 Miscellaneous Data

Fraction of year during which cattle graze locally	Est. 67 percent
Fraction of cattle feed obtained by grazing	Est. 90 percent
Fraction of stored cattle feed grown locally	Est. 10 percent
Acreage required to graze 1 animal unit (450 kg) for one month (AUM)	3.5 ha
Length of growing season	4 mo/yr
Fraction of locally produced vegetables consumed locally	Est. 100 percent
Fraction of locally produced meat consumed locally	Est. 10 percent
Fraction of locally produced milk consumed locally	Est. 100 percent

Estimates based on personal communication with the Sioux County, Nebraska Agricultural Extension Educator located in Harrison, Nebraska (Ms. Jenny Nixon).

AUM = animal units per month

ha = hectares

kg = kilogram

mo/yr = months per year

CROW BUTTE RESOURCES, INC.

Environmental Report

Three Crow Expansion Area



This page intentionally left blank

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



Appendix M-6 MILDOS-AREA Computer Run No. 1 for 38 Receptors

CROW BUTTE RESOURCES, INC.

Environmental Report **Three Crow Expansion Area**



This page intentionally left blank

11REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 1
METSET: ptors DATA: TC.MIL 06/02/10
0 TABLE OF CONTENTS

CLIMATE DATA	2
INDIVIDUAL RECEPTORS & MISCELLANEOUS INPUT DATA	3
POPULATION DISTRIBUTION	4
SOURCE PARAMETERS	5
TIME STEP 1, 10-Year Action Period	
CONCENTRATION DATA FOR SPATIAL INTERVALS	
ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR	
INHALATION PATHWAY	10
GROUND PATHWAY	14
CLOUD PATHWAY	15
VEGETATION INGESTION PATHWAY	16
MEAT INGESTION PATHWAY	18
MILK INGESTION PATHWAY	20
POPULATION DOSE SUMMARY	22
INDIVIDUAL RECEPTOR ALC CHECK AND/OR ANNUAL DOSE COMMITMENTS	23

This page intentionally left blank

1REGION: Crow Butte Three Crow Ol. CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL

PAGE 2
 06/02/10

JOINT FREQUENCY IN PERCENT, DIRECTION INDICATES WHERE WIND IS FROM FREQWS=0.10263,0.28970,0.30245,0.21999,0.07389,0.01933
 MPH N NNE NE ENE E ESE SE SSE S SSW SW WSW W WNW NW NW NNW TOTALS

STABILITY CLASS 1

1.5	0.0560	0.1420	0.0930	0.0370	0.0680	0.0190	0.0560	0.0250	0.0560	0.0310	0.0430	0.0370	0.0370	0.0430	0.0370	0.0870	0.8670
5.5	0.4880	0.4950	0.4820	0.2470	0.1110	0.0490	0.0990	0.1420	0.2100	0.1110	0.2100	0.1170	0.0990	0.0800	0.1300	0.2230	3.2930
10.0	0.1480	0.1670	0.0740	0.0310	0.0430	0.0120	0.0930	0.0930	0.0870	0.1170	0.0870	0.0990	0.0560	0.0870	0.1050	0.13860	
15.5	0.0060	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060	0.0000	0.0120	0.0000	0.0000	0.0060	0.0250	0.0060	0.0250	0.0920	
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
ALL	0.6980	0.8100	0.6490	0.3150	0.2220	0.0800	0.2480	0.2660	0.3530	0.2710	0.3400	0.2410	0.2410	0.2040	0.2600	0.4400	5.6380

STABILITY CLASS 2

1.5	0.0740	0.0990	0.0680	0.0620	0.0120	0.0430	0.0060	0.0490	0.0800	0.0740	0.0680	0.0430	0.0310	0.0490	0.0190	0.0310	0.8080
5.5	0.1980	0.2600	0.3890	0.1300	0.0620	0.0430	0.0930	0.0870	0.0740	0.1480	0.2350	0.1480	0.0990	0.0800	0.0800	0.1110	2.2370
10.0	0.4080	0.2780	0.4020	0.2100	0.0560	0.0800	0.1670	0.1790	0.2970	0.1670	0.1850	0.1920	0.1730	0.1550	0.2970	0.3650	3.6110
15.5	0.0490	0.0250	0.0370	0.0190	0.0060	0.0000	0.0190	0.0370	0.0680	0.0560	0.0430	0.0620	0.0310	0.0250	0.0800	0.1240	0.6810
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060	0.0060	0.0060	0.0060	0.0240	
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
ALL	0.7290	0.6620	0.8960	0.4210	0.1360	0.1660	0.2850	0.3520	0.5190	0.4450	0.5310	0.4510	0.3400	0.3090	0.4820	0.6370	7.3610

STABILITY CLASS 3

1.5	0.0800	0.0680	0.0990	0.0490	0.0000	0.0250	0.0190	0.0490	0.1050	0.1240	0.1110	0.1050	0.0120	0.0190	0.0430	0.0430	0.9510
5.5	0.1670	0.2840	0.2470	0.1110	0.0620	0.0370	0.0740	0.0800	0.1790	0.3280	0.3650	0.3280	0.0990	0.0560	0.0800	0.1550	2.6520
10.0	0.2910	0.3150	0.6180	0.3210	0.8000	0.0990	0.1980	0.2410	0.5750	0.4270	0.5070	0.3890	0.2160	0.1110	0.4020	0.3710	5.8810
15.5	0.0800	0.0930	0.1300	0.1050	0.0310	0.0250	0.0800	0.1610	0.0800	0.0930	0.1300	0.1050	0.0310	0.0250	0.0800	0.1610	1.4100
21.5	0.0800	0.0930	0.1300	0.1050	0.0000	0.0250	0.0800	0.1610	0.0000	0.0000	0.0120	0.0060	0.0060	0.0060	0.0000	0.7160	
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0060	
ALL	0.6980	0.8530	1.2240	0.6910	0.8930	0.2110	0.4510	0.6920	0.9390	0.9720	1.1250	0.9390	0.3700	0.2170	0.6110	0.7300	11.6160

STABILITY CLASS 4

1.5	0.0870	0.0800	0.0680	0.0190	0.0120	0.0060	0.0310	0.0680	0.1730	0.1110	0.0870	0.0870	0.0490	0.0250	0.0250	0.0190	0.9470
5.5	0.2660	0.5750	0.7850	0.2410	0.0310	0.1300	0.2160	0.9150	0.8590	0.7050	1.0880	0.3150	0.1050	0.0870	0.1610	0.2530	6.7320
10.0	0.5870	1.2050	1.3110	0.4080	0.1420	0.1790	0.3650	0.7730	1.8400	1.9660	2.9860	1.1750	0.3280	0.4700	0.8220	0.9270	15.4840
15.5	0.4270	1.4900	1.3970	0.2600	0.1110	0.0680	0.2660	1.3400	4.0000	1.8540	1.9530	1.4090	0.5320	0.7170	2.6400	1.2100	19.6740
21.5	0.1050	0.4570	0.2350	0.0310	0.0190	0.0000	0.0930	0.6240	1.8400	0.3890	0.1480	0.2780	0.2410	0.3400	1.3790	0.4640	6.6430
28.0	0.0120	0.0990	0.0430	0.0000	0.0000	0.0060	0.1730	0.2970	0.0620	0.0120	0.0800	0.0990	0.1420	0.7970	0.1050	1.9270	
ALL	1.4840	3.9060	3.8390	0.9590	0.3150	0.3830	0.9770	3.8930	9.0090	5.0870	6.2740	3.3440	1.3540	1.7810	5.8240	2.9780	51.4070

STABILITY CLASS 5

1.5	0.1300	0.1480	0.1480	0.0680	0.0250	0.0430	0.0740	0.2600	0.3400	0.3210	0.2720	0.1610	0.0990	0.0560	0.0680	0.0930	2.3060
5.5	0.4450	0.4270	0.5070	0.1920	0.1110	0.0990	0.2780	1.1600	1.6900	1.5070	1.2490	0.4390	0.1480	0.1480	0.1790	0.2040	8.8830
10.0	0.0990	0.2780	0.2910	0.1110	0.0310	0.0680	0.1300	0.1610	0.6610	0.4270	0.8650	0.3770	0.0560	0.1240	0.1300	0.0740	3.8830
15.5	0.0060	0.0000	0.0120	0.0000	0.0000	0.0190	0.0120	0.0250	0.0060	0.0190	0.0060	0.0060	0.0310	0.0000	0.1420	0.0060	
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
ALL	0.6800	0.8530	0.9580	0.3710	0.1670	0.2100	0.5010	1.5930	2.7160	2.3610	2.4110	0.9830	0.3090	0.3280	0.4080	0.3710	15.2200

STABILITY CLASS 6

1.5	0.3210	0.1610	0.0930	0.1360	0.1240	0.1730	0.1670	0.3650	0.7290	0.7050	0.6310	0.2660	0.1730	0.0800	0.1300	0.1300	4.3840
5.5	0.1610	0.1300	0.1360	0.0740	0.0430	0.0990	0.1730	0.4640	1.1800	1.2800	0.7790	0.2530	0.1420	0.0930	0.1170	0.0490	5.1730
10.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ALL	0.4820	0.2910	0.2290	0.2100	0.1670	0.2720	0.3400	0.8290	1.9090	1.9850	1.4100	0.5190	0.3150	0.1730	0.2470	0.1790	9.5570
ALL	4.7710	7.3750	7.7950	2.9670	1.9000	1.3220	2.8020	7.6250	15.4450	11.1210	10.0910	6.4770	2.9290	3.0120	7.8320	5.3350	100.7990

1REGION: Crow Butte Three Crow O1
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 3
06/02/10

INDIVIDUAL RECEPTOR LOCATION DATA,						38 LOCATIONS INPUT THIS RUN							
I	LOCATION NAMES	X(KM)	Y(KM)	Z(M)	DIST(KM)	TYPE	I	LOCATION NAMES	X(KM)	Y(KM)	Z(M)	DIST(KM)	TYPE
1	R1	-1.21	-0.44	0.00	1.29	10	20	STETSON	-0.46	1.22	0.00	1.30	10
2	R2	-1.95	1.95	0.00	2.76	10	21	KNODE	-1.89	2.68	0.00	3.28	10
3	R3	-1.89	2.71	0.00	3.30	10	22	BROTT	-1.37	1.34	0.00	1.92	10
4	R4	-3.34	2.80	0.00	4.36	10	23	SP1	0.73	0.15	0.00	0.75	10
5	R5	-3.57	3.99	0.00	5.35	10	24	SP2	0.67	0.58	0.00	0.89	10
6	CRAWFORD	-4.39	4.45	0.00	6.25	10	25	SP3	0.67	0.91	0.00	1.13	10
7	R7	-1.99	3.96	0.00	4.43	10	26	MCDOWELL	-2.16	4.36	0.00	4.87	10
8	R8	-1.99	3.60	0.00	4.11	10	27	TAGGART	-1.89	4.45	0.00	4.83	10
9	R9	-1.57	3.23	0.00	3.59	10	28	FRANEY	-0.98	4.76	0.00	4.86	10
10	R10	-1.16	2.80	0.00	3.03	10	29	BUNCH	1.01	4.27	0.00	4.39	10
11	R11	-1.78	2.77	0.00	3.29	10	30	DYER	-2.44	0.55	0.00	2.50	10
12	R12	-0.30	2.35	0.00	2.37	10	31	NT-1	-3.97	11.33	0.00	12.01	10
13	R13	0.03	1.49	0.00	1.49	10	32	NT-2	-4.12	8.93	0.00	9.83	10
14	R14	0.51	0.98	0.00	1.10	10	33	NT-3	-4.75	7.87	0.00	9.19	10
15	R15	0.52	0.34	0.00	0.62	10	34	NT-4	-5.82	6.69	0.00	8.87	10
16	R16	1.31	0.30	0.00	1.34	10	35	NT-5	-4.61	6.76	0.00	8.18	10
17	R17	1.31	-0.34	0.00	1.35	10	36	NT-6	-7.20	11.65	0.00	13.70	10
18	EHLERS	0.73	-0.06	0.00	0.73	10	37	NT-7	-8.25	9.86	0.00	12.86	10
19	GIBBONS	0.73	0.73	0.00	1.03	10	38	NT-8	-0.44	2.76	0.00	2.79	10

MISCELLANEOUS INPUTABLE PARAMETER VALUES

DMM	DMA	TSTART	FFORI	FHAYI	FFORP	FHAYP	FPR(1)	FPR(2)	FPR(3)	ACTRAT
100.0	100.0	2006.00	0.90	0.10	0.90	0.10	87000.00	4000.00	0.00	2.50

IPACT EQUALS 0, 0, 0, 0, 0, 0, 0, 0, 0,

JC EQUALS 1, 0, 1, 1, 0, 0, 1, 0, 0, 0

TIME STEP DATA.... STEP NAMES LENGTH, YRS IFTODO
1 10-Year Action Perio 5.00 1

XRHO EQUALS 1.5, 2.5, 3.5, 4.5, 7.5, 15.0, 25.0, 35.0, 45.0, 55.0, 65.0, 75.0,

HDP EQUALS 50.0

1REGION: Crow Butte Three Crow OI
METSET: ptors

CODE: MILDOS=AREA (02/97)
DATA: TC.MIL

PAGE 4
06/02/10

POPULATION DISTRIBUTION

KILOMETERS	N 0.0	NNE 22.5	NE 45.0	ENE 67.5	E 90.0	ESE 112.5	SE 135.0	SSE 157.5	S 180.0	SSW 202.5	SW 225.0	WSW 247.5	W 270.0	WNW 292.5	NW 315.0	NNW 337.5
1.0- 2.0	0	0	0	0	0	2	0	0	0	1	2	0	0	0	2	2
2.0- 3.0	0	0	0	0	0	3	0	0	0	0	4	0	6	0	0	2
3.0- 4.0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0
4.0- 5.0	0	1	1	0	0	0	4	6	0	0	0	0	0	2	0	5
5.0-10.0	15	2	6	10	0	5	13	1	10	5	4	13	6	84	1308	21
10.0-20.0	39	111	39	39	39	39	39	39	39	39	28	24	39	23	28	21
20.0-30.0	65	65	65	65	65	65	65	94	110	58	35	35	35	35	35	54
30.0-40.0	95	92	91	5982	91	91	124	91	192	64	49	49	49	49	49	61
40.0-50.0	145	142	124	157	140	125	238	1367	243	67	61	61	422	61	63	146
50.0-60.0	178	185	290	232	1047	249	301	301	283	76	76	84	300	79	119	178
60.0-70.0	210	400	488	647	302	302	338	359	299	89	89	242	199	106	191	209
70.0-80.0	242	365	572	3077	1563	348	364	10290	1186	1077	157	354	239	127	187	381
1.0-80.0	989	1363	1676	10209	3247	1229	1490	12543	2362	1476	505	864	1295	566	1984	1080

TOTAL 1-80 KM POPULATION IS 42878 PERSONS

1REGION: Crow Butte Three Crow Cl. CODE: MILDOS-AREA (02/97)
METSET: Dtors DATA: TC MIL

PAGE 5
06/02/10

NUMBER OF SOURCES = 9

NO.	KM X	KM Y	M Z	KM2 AREA	U-238	Th-230	CI/YEAR Ra-226	Pb-210	Rn-222	ID	PSIZE SET	M/SEC EXIT VEL	SOURCE NAME
1	0.00	0.00	15.90	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.30E+03	1001	1	1.16E+01	Main Plant Stack
2	-5.30	9.60	5.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E+02	1002	1	1.00E+01	NT satellite stack
3	-0.30	0.16	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E+02	1003	1	0.00E+00	MU 2,3,4
4	0.00	0.74	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E+02	1004	1	0.00E+00	MU 5
5	-1.20	1.80	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E+02	1005	1	0.00E+00	MU 6&8
6	0.00	-0.74	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E+02	1006	1	0.00E+00	MU 7&9
7	-5.30	9.60	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E+03	1007	1	0.00E+00	North Trend Well F
8	-7.98	-1.38	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E+03	1008	1	0.00E+00	TC well field
9	-9.60	-0.73	10.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E+02	1009	1	1.00E+01	TC satellite stack

INPUT TAILS ACTIVITIES, PCI/G
 SET URANIUM THORIUM RADIUM

1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00

AMAD AND FRACTIONAL DISTRIBUTION SET 1.5 3.0 7.7 54.0

	1	2	3	4
1	0.000	1.000	0.000	0.000
2	1.000	0.000	0.000	0.000
3	0.000	0.000	0.300	0.700

PARTICULATE SOURCE STRENGTH MULTIPLIERS BY TIME STEP, 1 TIME STEP(S) USED FOR THIS RUN

RADON SOURCE STRENGTH MULTIPLIERS BY TIME STEP, 1 TIME STEP(S) USED FOR THIS RUN

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 6
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE N DIRECTION, THETA EQUALS 0.0 DEGREES

TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	WL
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.974E+02	2.466E+02	6.960E+01	2.617E+01	4.653E-05	7.045E-04
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.684E+02	1.565E+02	6.711E+01	3.466E+01	7.202E-05	6.307E-04
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.178E+02	1.140E+02	6.098E+01	3.739E+01	1.001E-04	5.660E-04
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.683E+01	8.549E+01	5.280E+01	3.505E+01	1.240E-04	4.902E-04
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.029E+01	5.012E+01	3.736E+01	2.894E+01	1.661E-04	3.490E-04
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.213E+01	3.213E+01	2.714E+01	2.285E+01	2.245E-04	2.559E-04
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.641E+01	1.642E+01	1.541E+01	1.415E+01	2.378E-04	1.478E-04
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.088E+01	1.089E+01	1.055E+01	1.004E+01	2.374E-04	1.022E-04
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.962E+00	7.966E+00	7.843E+00	7.611E+00	2.325E-04	7.636E-05
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.199E+00	6.202E+00	6.159E+00	6.050E+00	2.268E-04	6.018E-05
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.030E+00	5.033E+00	5.022E+00	4.971E+00	2.211E-04	4.919E-05
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.205E+00	4.207E+00	4.209E+00	4.187E+00	2.157E-04	4.129E-05

GROUND SURFACE CONCENTRATIONS, PCI/M2

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.953E+02	1.953E+02	1.953E+02	1.973E+01
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.239E+02	1.239E+02	1.239E+02	3.053E+01
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.027E+01	9.027E+01	9.027E+01	4.246E+01
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.771E+01	6.771E+01	6.771E+01	5.255E+01
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.970E+01	3.970E+01	3.970E+01	7.042E+01
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.545E+01	2.545E+01	2.545E+01	9.519E+01
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.301E+01	1.301E+01	1.301E+01	1.008E+02
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.625E+00	8.625E+00	8.625E+00	1.006E+02
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.310E+00	6.310E+00	6.310E+00	9.858E+01
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.913E+00	4.913E+00	4.913E+00	9.616E+01
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.986E+00	3.986E+00	3.986E+00	9.373E+01
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.332E+00	3.332E+00	3.332E+00	9.145E+01

TOTAL DEPOSITION RATES, PCI/M2-SEC

XRHO, KM	U-238	Th-230	Ra-226	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	1.396E-07
2.5	0.000E+00	0.000E+00	0.000E+00	2.161E-07
3.5	0.000E+00	0.000E+00	0.000E+00	3.004E-07
4.5	0.000E+00	0.000E+00	0.000E+00	3.719E-07
7.5	0.000E+00	0.000E+00	0.000E+00	4.983E-07
15.0	0.000E+00	0.000E+00	0.000E+00	6.735E-07
25.0	0.000E+00	0.000E+00	0.000E+00	7.133E-07
35.0	0.000E+00	0.000E+00	0.000E+00	7.121E-07
45.0	0.000E+00	0.000E+00	0.000E+00	6.975E-07
55.0	0.000E+00	0.000E+00	0.000E+00	6.804E-07
65.0	0.000E+00	0.000E+00	0.000E+00	6.532E-07
75.0	0.000E+00	0.000E+00	0.000E+00	6.471E-07

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
 METSET: DATA: TC.MIL

PAGE 7
 06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE E DIRECTION, THETA EQUALS 90.0 DEGREES

TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	WL
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.854E+01	5.152E+01	2.028E+01	1.007E+01	3.203E-05	1.934E-04
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.308E+01	3.155E+01	1.697E+01	1.054E+01	3.705E-05	1.578E-04
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.317E+01	2.269E+01	1.436E+01	1.010E+01	4.191E-05	1.339E-04
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.808E+01	1.789E+01	1.243E+01	9.363E+00	4.642E-05	1.164E-04
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.084E+01	1.082E+01	8.581E+00	7.032E+00	5.372E-05	8.088E-05
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.100E+00	5.103E+00	4.597E+00	4.081E+00	5.725E-05	4.379E-05
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.933E+00	2.935E+00	2.807E+00	2.634E+00	5.762E-05	2.708E-05
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.034E+00	2.035E+00	1.993E+00	1.924E+00	5.704E-05	1.938E-05
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.536E+00	1.537E+00	1.523E+00	1.492E+00	5.597E-05	1.487E-05
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.222E+00	1.223E+00	1.219E+00	1.205E+00	5.478E-05	1.193E-05
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.006E+00	1.007E+00	1.007E+00	1.001E+00	5.356E-05	9.878E-06
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.519E-01	8.523E-01	8.540E-01	8.519E-01	5.247E-05	8.385E-06

GROUND SURFACE CONCENTRATIONS, PCI/M2

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.081E+01	4.081E+01	4.081E+01	1.358E+01
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.499E+01	2.499E+01	2.499E+01	1.571E+01
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.797E+01	1.797E+01	1.797E+01	1.777E+01
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.417E+01	1.417E+01	1.417E+01	1.968E+01
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.572E+00	8.572E+00	8.572E+00	2.278E+01
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.042E+00	4.042E+00	4.042E+00	2.427E+01
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.324E+00	2.324E+00	2.324E+00	2.443E+01
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.612E+00	1.612E+00	1.612E+00	2.418E+01
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.217E+00	1.217E+00	1.217E+00	2.373E+01
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.683E-01	9.683E-01	9.683E-01	2.323E+01
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.976E-01	7.976E-01	7.976E-01	2.271E+01
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.751E-01	6.751E-01	6.751E-01	2.224E+01

TOTAL DEPOSITION RATES, PCI/M2-SEC

XRHO, KM	U-238	Th-230	Ra-226	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	9.610E-08
2.5	0.000E+00	0.000E+00	0.000E+00	1.111E-07
3.5	0.000E+00	0.000E+00	0.000E+00	1.257E-07
4.5	0.000E+00	0.000E+00	0.000E+00	1.393E-07
7.5	0.000E+00	0.000E+00	0.000E+00	1.612E-07
15.0	0.000E+00	0.000E+00	0.000E+00	1.718E-07
25.0	0.000E+00	0.000E+00	0.000E+00	1.729E-07
35.0	0.000E+00	0.000E+00	0.000E+00	1.711E-07
45.0	0.000E+00	0.000E+00	0.000E+00	1.679E-07
55.0	0.000E+00	0.000E+00	0.000E+00	1.643E-07
65.0	0.000E+00	0.000E+00	0.000E+00	1.607E-07
75.0	0.000E+00	0.000E+00	0.000E+00	1.574E-07

1REGION: Crow Butte Three Crow Ol
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 8
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE S DIRECTION, THETA EQUALS 180.0 DEGREES

TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	WL
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.143E+02	1.002E+02	3.281E+01	1.335E+01	3.118E-05	3.193E-04
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.596E+01	5.385E+01	2.788E+01	1.617E+01	4.107E-05	2.571E-04
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.833E+01	3.777E+01	2.366E+01	1.609E+01	5.061E-05	2.189E-04
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.924E+01	2.905E+01	2.017E+01	1.490E+01	5.811E-05	1.878E-04
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.854E+01	1.852E+01	1.468E+01	1.190E+01	7.861E-05	1.379E-04
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.420E+00	9.424E+00	8.506E+00	7.527E+00	9.626E-05	8.091E-05
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.452E+00	5.455E+00	5.263E+00	4.977E+00	1.026E-04	5.087E-05
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.841E+00	3.843E+00	3.792E+00	3.693E+00	1.062E-04	3.696E-05
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.913E+00	2.915E+00	2.903E+00	2.868E+00	1.066E-04	2.842E-05
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.320E+00	2.321E+00	2.322E+00	2.310E+00	1.058E-04	2.278E-05
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.911E+00	1.912E+00	1.917E+00	1.914E+00	1.044E-04	1.883E-05
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.614E+00	1.615E+00	1.621E+00	1.622E+00	1.029E-04	1.593E-05

GROUND SURFACE CONCENTRATIONS, PCI/M2

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.934E+01	7.934E+01	7.934E+01	1.322E+01
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.265E+01	4.265E+01	4.265E+01	1.741E+01
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.991E+01	2.991E+01	2.991E+01	2.146E+01
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.301E+01	2.301E+01	2.301E+01	2.464E+01
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.467E+01	1.467E+01	1.467E+01	3.333E+01
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.464E+00	7.464E+00	7.464E+00	4.081E+01
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.321E+00	4.321E+00	4.321E+00	4.351E+01
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.044E+00	3.044E+00	3.044E+00	4.501E+01
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.309E+00	2.309E+00	2.309E+00	4.518E+01
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.838E+00	1.838E+00	1.838E+00	4.484E+01
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.514E+00	1.514E+00	1.514E+00	4.427E+01
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.279E+00	1.279E+00	1.279E+00	4.362E+01

TOTAL DEPOSITION RATES, PCI/M2-SEC

XRHO, KM	U-238	Th-230	Ra-226	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	9.353E-08
2.5	0.000E+00	0.000E+00	0.000E+00	1.232E-07
3.5	0.000E+00	0.000E+00	0.000E+00	1.518E-07
4.5	0.000E+00	0.000E+00	0.000E+00	1.743E-07
7.5	0.000E+00	0.000E+00	0.000E+00	2.358E-07
15.0	0.000E+00	0.000E+00	0.000E+00	2.888E-07
25.0	0.000E+00	0.000E+00	0.000E+00	3.078E-07
35.0	0.000E+00	0.000E+00	0.000E+00	3.185E-07
45.0	0.000E+00	0.000E+00	0.000E+00	3.197E-07
55.0	0.000E+00	0.000E+00	0.000E+00	3.173E-07
65.0	0.000E+00	0.000E+00	0.000E+00	3.133E-07
75.0	0.000E+00	0.000E+00	0.000E+00	3.086E-07

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
 METSET: DATA: TC.MIL

PAGE 9
 06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE W DIRECTION, THETA EQUALS 270.0 DEGREES

XRHO, KM	TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL									
	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	WL
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.828E+01	4.381E+01	1.877E+01	9.876E+00	3.044E-05	1.771E-04
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.359E+01	3.224E+01	1.736E+01	1.098E+01	3.583E-05	1.622E-04
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.770E+01	2.723E+01	1.690E+01	1.181E+01	4.119E-05	1.578E-04
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.738E+01	2.703E+01	1.760E+01	1.266E+01	4.555E-05	1.643E-04
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.358E+02	1.241E+02	4.891E+01	2.197E+01	4.844E-05	4.577E-04
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.385E+00	7.385E+00	6.239E+00	5.216E+00	4.490E-05	5.869E-05
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.926E+00	2.927E+00	2.765E+00	2.539E+00	4.178E-05	2.650E-05
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.784E+00	1.785E+00	1.750E+00	1.682E+00	3.985E-05	1.698E-05
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.276E+00	1.277E+00	1.269E+00	1.247E+00	3.835E-05	1.240E-05
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.815E-01	9.821E-01	9.820E-01	9.752E-01	3.706E-05	9.628E-06
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.902E-01	7.907E-01	7.927E-01	7.914E-01	3.593E-05	7.785E-06
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.568E-01	6.571E-01	6.596E-01	6.602E-01	3.491E-05	6.483E-06

XRHO, KM	GROUND SURFACE CONCENTRATIONS, PCI/M2									
	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.470E+01	3.470E+01	3.470E+01	1.291E+01	
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.553E+01	2.553E+01	2.553E+01	1.519E+01	
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.156E+01	2.156E+01	2.156E+01	1.747E+01	
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.141E+01	2.141E+01	2.141E+01	1.931E+01	
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.828E+01	9.828E+01	9.828E+01	2.054E+01	
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.849E+00	5.849E+00	5.849E+00	1.904E+01	
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.319E+00	2.319E+00	2.319E+00	1.771E+01	
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.414E+00	1.414E+00	1.414E+00	1.690E+01	
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.012E+00	1.012E+00	1.012E+00	1.626E+01	
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.779E-01	7.779E-01	7.779E-01	1.571E+01	
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.262E-01	6.262E-01	6.262E-01	1.523E+01	
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.205E-01	5.205E-01	5.205E-01	1.480E+01	

XRHO, KM	TOTAL DEPOSITION RATES, PCI/M2-SEC				
	U-238	Th-230	Ra-226	Pb-210	
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.133E-08
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.075E-07
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.236E-07
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.366E-07
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.453E-07
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.347E-07
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.253E-07
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.196E-07
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.151E-07
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.112E-07
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.078E-07
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.047E-07

1REGION: Crow Butte Three Crow OI CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 10
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS EFFECTIV.

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.819E-04	6.395E-04	1.129E-03	1.648E-03	2.465E-03	2.953E-03	3.397E-03	3.821E-03
NNE	-0.000E+00	0.000E+00	0.000E+00	8.203E-06	2.232E-05	1.583E-03	1.034E-03	1.466E-03	2.223E-03	2.827E-03	5.959E-03	5.301E-03
NE	0.000E+00	0.000E+00	0.000E+00	7.021E-06	5.559E-05	4.608E-04	8.401E-04	1.206E-03	1.658E-03	3.855E-03	6.412E-03	7.405E-03
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.874E-05	2.693E-04	4.722E-04	4.411E-02	1.161E-03	1.705E-03	4.704E-03	2.207E-02
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.631E-04	2.737E-04	3.795E-04	5.731E-04	4.196E-03	1.184E-03	6.005E-03
ESE	4.260E-06	6.946E-06	0.000E+00	0.000E+00	1.511E-05	1.249E-04	2.070E-04	2.842E-04	3.824E-04	7.460E-04	8.866E-04	1.002E-03
SE	0.000E+00	0.000E+00	1.042E-05	1.132E-05	4.173E-05	1.382E-04	2.420E-04	4.675E-04	8.974E-04	1.128E-03	1.256E-03	1.338E-03
SSE	0.000E+00	0.000E+00	0.000E+00	1.774E-05	3.491E-06	1.604E-04	4.080E-04	4.012E-04	6.022E-03	1.316E-03	1.533E-03	4.406E-02
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.740E-05	2.742E-04	8.248E-04	1.490E-03	1.894E-03	2.189E-03	2.285E-03	8.933E-03
SSW	2.330E-06	0.000E+00	0.000E+00	0.000E+00	2.787E-05	2.867E-04	4.697E-04	5.187E-04	5.385E-04	6.033E-04	6.967E-04	8.309E-03
SW	4.555E-06	1.156E-05	0.000E+00	0.000E+00	2.068E-05	1.901E-04	2.470E-04	3.521E-04	4.338E-04	5.438E-04	6.311E-04	1.101E-03
WSW	0.000E+00	0.000E+00	6.121E-06	0.000E+00	4.905E-05	1.146E-04	1.698E-04	2.335E-04	2.823E-04	3.777E-04	4.059E-03	1.509E-03
W	0.000E+00	1.570E-05	0.000E+00	0.000E+00	2.122E-05	1.279E-04	1.068E-04	1.427E-04	1.183E-03	8.133E-04	5.231E-04	6.107E-04
WNW	0.000E+00	0.000E+00	0.000E+00	8.804E-06	4.635E-04	9.030E-05	1.218E-04	1.688E-04	2.052E-04	2.583E-04	3.368E-04	3.925E-04
NW	5.016E-06	0.000E+00	7.815E-06	0.000E+00	8.207E-03	1.633E-04	1.771E-04	2.300E-04	2.787E-04	5.012E-04	7.715E-04	7.282E-04
NNW	5.814E-06	8.238E-06	0.000E+00	3.362E-05	1.783E-04	2.408E-04	6.219E-04	6.571E-04	1.489E-03	1.733E-03	1.954E-03	3.435E-03

TOTAL DOSE COMMITMENT IS 2.727E-01 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 11
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.476E-03	5.188E-03	9.157E-03	1.336E-02	1.998E-02	2.392E-02	2.751E-02	3.093E-02
NNE	0.000E+00	0.000E+00	0.000E+00	6.657E-05	1.811E-04	1.284E-02	8.384E-03	1.188E-02	1.801E-02	2.290E-02	4.825E-02	4.290E-02
NE	0.000E+00	0.000E+00	0.000E+00	5.697E-05	4.511E-04	3.737E-03	6.812E-03	9.775E-03	1.343E-02	3.123E-02	5.191E-02	5.994E-02
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.766E-04	2.184E-03	3.829E-03	3.575E-01	9.410E-03	1.381E-02	3.808E-02	1.786E-01
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.323E-03	2.219E-03	3.075E-03	4.643E-03	3.398E-02	9.583E-03	4.859E-02
ESE	3.456E-05	5.636E-05	0.000E+00	0.000E+00	1.226E-04	1.013E-03	1.679E-03	2.304E-03	3.098E-03	6.042E-03	7.177E-03	8.108E-03
SE	0.000E+00	0.000E+00	8.452E-05	9.184E-05	3.386E-04	1.121E-03	1.962E-03	3.789E-03	7.271E-03	9.139E-03	1.017E-02	1.083E-02
SSE	0.000E+00	0.000E+00	0.000E+00	1.439E-04	2.832E-05	1.301E-03	3.308E-03	3.252E-03	4.880E-02	1.066E-02	1.241E-02	3.566E-01
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.657E-04	2.224E-03	6.688E-03	1.208E-02	1.534E-02	1.773E-02	1.850E-02	7.229E-02
SSW	1.891E-05	0.000E+00	0.000E+00	0.000E+00	2.261E-04	2.326E-03	3.809E-03	4.204E-03	4.363E-03	4.887E-03	5.641E-03	6.726E-02
SW	3.696E-05	9.384E-05	0.000E+00	0.000E+00	1.678E-04	1.542E-03	2.003E-03	2.855E-03	3.557E-03	4.405E-03	5.111E-03	8.917E-03
WSW	0.000E+00	0.000E+00	4.967E-05	0.000E+00	3.980E-04	9.299E-04	1.377E-03	1.893E-03	2.288E-03	3.060E-03	8.572E-03	1.221E-02
W	0.000E+00	1.274E-04	0.000E+00	0.000E+00	1.722E-04	1.038E-03	8.664E-04	1.157E-03	9.589E-03	6.588E-03	4.236E-03	4.943E-03
WNW	0.000E+00	0.000E+00	0.000E+00	7.145E-05	3.761E-03	7.326E-04	9.880E-04	1.368E-03	1.663E-03	2.092E-03	2.727E-03	3.177E-03
NW	4.070E-05	0.000E+00	6.341E-05	0.000E+00	6.659E-02	1.325E-03	1.437E-03	1.865E-03	2.258E-03	4.060E-03	6.248E-03	5.894E-03
NNW	4.718E-05	6.685E-05	0.000E+00	2.728E-04	1.447E-03	1.953E-03	5.043E-03	5.327E-03	1.207E-02	1.404E-02	1.582E-02	2.781E-02

TOTAL DOSE COMMITMENT IS 2.209E+00 PERSON-REM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
METSET: ptors
 DATA: TC.MIL

PAGE 12
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS AVG.LUNG

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.110E-05	7.524E-05	1.358E-04	2.026E-04	3.097E-04	3.790E-04	4.454E-04	5.115E-04
NNE	0.000E+00	0.000E+00	0.000E+00	9.474E-07	2.592E-06	1.869E-04	1.246E-04	1.806E-04	2.798E-04	3.636E-04	7.827E-04	7.109E-04
NE	0.000E+00	0.000E+00	0.000E+00	8.117E-07	6.461E-06	5.445E-05	1.015E-04	1.488E-04	2.089E-04	4.959E-04	8.415E-04	9.914E-04
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.843E-06	3.191E-05	5.726E-05	5.469E-03	1.472E-04	2.208E-04	6.221E-04	2.980E-03
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.937E-05	3.328E-05	4.722E-05	7.296E-05	5.463E-04	1.575E-04	8.164E-04
ESE	4.951E-07	8.074E-07	0.000E+00	0.000E+00	1.769E-06	1.485E-05	2.517E-05	3.533E-05	4.857E-05	9.680E-05	1.175E-04	1.355E-04
SE	0.000E+00	0.000E+00	1.210E-06	1.316E-06	4.875E-06	1.640E-05	2.934E-05	5.786E-05	1.133E-04	1.452E-04	1.646E-04	1.787E-04
SSE	0.000E+00	0.000E+00	0.000E+00	2.060E-06	4.073E-07	1.901E-05	4.943E-05	4.963E-05	7.605E-04	1.696E-04	2.015E-04	5.902E-03
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.677E-06	3.246E-05	9.994E-05	1.847E-04	2.402E-04	2.839E-04	3.029E-04	1.210E-03
SSW	2.697E-07	0.000E+00	0.000E+00	0.000E+00	3.242E-06	3.389E-05	5.671E-05	6.396E-05	6.780E-05	7.755E-05	9.140E-05	1.112E-03
SW	5.270E-07	1.336E-06	0.000E+00	0.000E+00	2.405E-06	2.237E-05	2.966E-05	4.312E-05	5.480E-05	6.920E-05	8.182E-05	1.455E-04
WSW	0.000E+00	0.000E+00	7.073E-07	0.000E+00	5.697E-06	1.347E-05	2.038E-05	2.863E-05	3.539E-05	4.837E-05	1.385E-04	2.015E-04
W	0.000E+00	1.813E-06	0.000E+00	0.000E+00	2.453E-06	1.499E-05	1.281E-05	1.751E-05	1.485E-04	1.043E-04	6.854E-05	8.171E-05
WNW	0.000E+00	0.000E+00	0.000E+00	1.015E-06	5.344E-05	1.057E-05	1.463E-05	2.075E-05	2.583E-05	3.330E-05	4.444E-05	5.299E-05
NW	5.802E-07	0.000E+00	9.015E-07	0.000E+00	9.482E-04	1.913E-05	2.121E-05	2.816E-05	3.487E-05	6.410E-05	1.008E-04	9.713E-05
NNW	6.721E-07	9.502E-07	0.000E+00	3.879E-06	2.067E-05	2.823E-05	7.455E-05	8.051E-05	1.864E-04	2.216E-04	2.550E-04	4.577E-04

TOTAL DOSE COMMITMENT IS 3.530E-02 PERSON-REM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 13
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS BRONCHI

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.430E-01	1.566E+00	1.333E+00	1.292E+00	1.443E+00	1.379E+00	1.320E+00	1.272E+00
NNE	0.000E+00	0.000E+00	0.000E+00	8.927E-02	1.050E-01	3.017E+00	1.101E+00	1.054E+00	1.198E+00	1.216E+00	2.131E+00	1.622E+00
NE	0.000E+00	0.000E+00	0.000E+00	7.688E-02	2.726E-01	8.911E-01	8.985E-01	8.907E-01	9.351E-01	1.757E+00	2.452E+00	2.439E+00
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.448E-01	4.690E-01	4.588E-01	2.997E+01	6.064E-01	7.226E-01	1.677E+00	6.791E+00
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.486E-01	2.383E-01	2.313E-01	2.688E-01	1.599E+00	3.799E-01	1.664E+00
ESE	1.316E-01	1.054E-01	0.000E+00	0.000E+00	5.730E-02	2.224E-01	2.152E-01	2.078E-01	2.151E-01	3.405E-01	3.404E-01	3.319E-01
SE	0.000E+00	0.000E+00	1.475E-01	1.134E-01	2.248E-01	3.448E-01	3.549E-01	4.866E-01	7.247E-01	7.452E-01	7.024E-01	6.497E-01
SSE	0.000E+00	0.000E+00	0.000E+00	1.616E-01	1.646E-02	3.471E-01	5.059E-01	3.449E-01	3.956E+00	6.993E-01	6.841E-01	1.695E+01
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.317E-01	4.592E-01	7.497E-01	9.218E-01	8.849E-01	8.206E-01	7.142E-01	2.393E+00
SSW	1.627E-01	0.000E+00	0.000E+00	0.000E+00	1.403E-01	5.649E-01	5.015E-01	3.873E-01	3.078E-01	2.789E-01	2.703E-01	2.776E+00
SW	2.887E-01	3.300E-01	0.000E+00	0.000E+00	1.302E-01	4.925E-01	3.404E-01	3.260E-01	3.046E-01	3.013E-01	2.909E-01	4.345E-01
WSW	0.000E+00	0.000E+00	7.363E-02	0.000E+00	5.982E-01	3.452E-01	2.172E-01	1.888E-01	1.660E-01	1.742E-01	4.011E-01	4.848E-01
W	0.000E+00	2.519E-01	0.000E+00	0.000E+00	1.019E+00	3.600E-01	1.280E-01	1.093E-01	6.733E-01	3.681E-01	1.966E-01	1.962E-01
WNW	0.000E+00	0.000E+00	0.000E+00	7.948E-02	4.145E+00	2.332E-01	1.242E-01	1.068E-01	9.350E-02	9.173E-02	9.780E-02	9.628E-02
NW	2.532E-01	0.000E+00	9.706E-02	0.000E+00	5.223E+01	4.481E-01	2.162E-01	1.801E-01	1.600E-01	2.270E-01	2.884E-01	2.316E-01
NNW	4.449E-01	6.812E-01	0.000E+00	3.933E-01	1.062E+00	9.902E-01	8.014E-01	5.340E-01	8.889E-01	8.186E-01	7.640E-01	1.146E+00

TOTAL DOSE COMMITMENT IS 1.983E+02 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 14
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS GROUND EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.084E-04	1.843E-04	1.633E-04	1.643E-04	1.903E-04	1.883E-04	1.865E-04	1.855E-04
NNE	0.000E+00	0.000E+00	0.000E+00	1.011E-05	1.211E-05	3.590E-04	1.360E-04	1.353E-04	1.599E-04	1.685E-04	3.061E-04	2.412E-04
NE	0.000E+00	0.000E+00	0.000E+00	8.706E-06	3.145E-05	1.060E-04	1.109E-04	1.140E-04	1.239E-04	2.410E-04	3.474E-04	3.567E-04
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.831E-05	5.606E-05	5.711E-05	3.875E-03	8.132E-05	1.004E-04	2.410E-04	1.009E-03
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.994E-05	2.997E-05	3.033E-05	3.667E-05	2.267E-04	5.589E-05	2.537E-04
ESE	1.269E-05	1.124E-05	0.000E+00	6.632E-06	2.655E-05	2.663E-05	2.662E-05	2.852E-05	4.668E-05	4.818E-05	4.847E-05	
SE	0.000E+00	0.000E+00	1.576E-05	1.250E-05	2.569E-05	4.054E-05	4.284E-05	6.021E-05	9.185E-05	9.668E-05	9.320E-05	8.812E-05
SSE	0.000E+00	0.000E+00	0.000E+00	1.814E-05	1.896E-06	4.106E-05	6.175E-05	4.343E-05	5.136E-04	9.351E-05	9.414E-05	2.398E-03
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.684E-05	5.500E-05	9.390E-05	1.206E-04	1.208E-04	1.167E-04	1.057E-04	3.680E-04
SSW	1.526E-05	0.000E+00	0.000E+00	0.000E+00	1.614E-05	6.711E-05	6.192E-05	4.951E-05	4.072E-05	3.815E-05	3.818E-05	4.046E-04
SW	2.798E-05	3.539E-05	0.000E+00	0.000E+00	1.485E-05	5.784E-05	4.125E-05	4.076E-05	3.927E-05	4.004E-05	3.981E-05	6.118E-05
WSW	0.000E+00	0.000E+00	8.263E-06	0.000E+00	6.141E-05	4.030E-05	2.645E-05	2.393E-05	2.188E-05	2.383E-05	5.693E-05	7.129E-05
W	0.000E+00	2.755E-05	0.000E+00	0.000E+00	1.056E-04	4.216E-05	1.566E-05	1.393E-05	8.913E-05	5.053E-05	2.795E-05	2.885E-05
WNW	0.000E+00	0.000E+00	0.000E+00	9.041E-06	4.708E-04	2.738E-05	1.540E-05	1.393E-05	1.282E-05	1.320E-05	1.473E-05	1.517E-05
NW	2.468E-05	0.000E+00	1.085E-05	0.000E+00	5.986E-03	5.250E-05	2.642E-05	2.290E-05	2.116E-05	3.116E-05	4.105E-05	3.414E-05
NNW	4.233E-05	6.164E-05	0.000E+00	4.407E-05	1.206E-04	1.138E-04	9.755E-05	6.764E-05	1.169E-04	1.116E-04	1.078E-04	1.671E-04

TOTAL DOSE COMMITMENT IS 2.533E-02 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 15
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS CLOUD EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.928E-03	9.990E-03	1.018E-02	1.051E-02	1.213E-02	1.182E-02	1.145E-02	1.110E-02
NNE	0.000E+00	0.000E+00	0.000E+00	3.658E-04	5.805E-04	2.133E-02	8.768E-03	8.845E-03	1.030E-02	1.059E-02	1.867E-02	1.426E-02
NE	0.000E+00	0.000E+00	0.000E+00	3.022E-04	1.438E-03	6.202E-03	7.143E-03	7.474E-03	8.047E-03	1.531E-02	2.150E-02	2.147E-02
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.334E-03	3.248E-03	3.612E-03	2.492E-01	5.181E-03	6.264E-03	1.465E-02	5.961E-02
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.771E-03	1.890E-03	1.926E-03	2.294E-03	1.384E-02	3.314E-03	1.459E-02
ESE	2.015E-04	2.857E-04	0.000E+00	0.000E+00	3.021E-04	1.467E-03	1.628E-03	1.679E-03	1.802E-03	2.913E-03	2.947E-03	2.895E-03
SE	0.000E+00	0.000E+00	3.977E-04	3.693E-04	9.428E-04	1.930E-03	2.415E-03	3.674E-03	5.808E-03	6.190E-03	5.965E-03	5.594E-03
SSE	0.000E+00	0.000E+00	0.000E+00	6.181E-04	8.027E-05	2.166E-03	3.731E-03	2.763E-03	3.307E-02	5.984E-03	5.930E-03	1.480E-01
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.342E-03	3.267E-03	6.038E-03	7.791E-03	7.643E-03	7.163E-03	6.268E-03	2.106E-02
SSW	1.746E-04	0.000E+00	0.000E+00	0.000E+00	7.002E-04	3.826E-03	3.936E-03	3.208E-03	2.622E-03	2.413E-03	2.358E-03	2.434E-02
SW	3.320E-04	7.226E-04	0.000E+00	0.000E+00	5.898E-04	3.159E-03	2.582E-03	2.671E-03	2.586E-03	2.605E-03	2.539E-03	3.812E-03
WSW	0.000E+00	0.000E+00	2.829E-04	0.000E+00	1.659E-03	2.024E-03	1.659E-03	1.563E-03	1.421E-03	1.513E-03	3.512E-03	4.261E-03
W	0.000E+00	7.747E-04	0.000E+00	0.000E+00	1.668E-03	2.283E-03	9.840E-04	9.069E-04	5.776E-03	3.207E-03	1.725E-03	1.728E-03
WNW	0.000E+00	0.000E+00	0.000E+00	3.769E-04	1.928E-02	1.509E-03	9.824E-04	9.017E-04	8.095E-04	8.026E-04	8.599E-04	8.486E-04
NW	3.119E-04	0.000E+00	3.559E-04	0.000E+00	2.764E-01	2.862E-03	1.673E-03	1.490E-03	1.365E-03	1.967E-03	2.520E-03	2.033E-03
NNW	4.673E-04	6.468E-04	0.000E+00	1.511E-03	5.205E-03	5.175E-03	6.017E-03	4.350E-03	7.499E-03	7.035E-03	6.636E-03	1.002E-02

TOTAL DOSE COMMITMENT IS 1.434E+00 PERSON-REM/YR

1REGION: Crow Butte Three Crow OI CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 16
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS VEG. ING EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	3.417E-03	8.817E-03	1.715E-02	2.731E-02	3.050E-01	1.649E+00	2.911E+00	4.066E+00	5.122E+00	6.107E+00	7.037E+00	7.919E+00
NNE	3.314E-03	8.318E-03	1.558E-02	2.475E-02	2.807E-01	1.434E+00	2.665E+00	3.734E+00	4.716E+00	5.626E+00	6.480E+00	7.284E+00
NE	3.096E-03	7.491E-03	1.371E-02	2.118E-02	2.330E-01	1.188E+00	2.166E+00	3.106E+00	4.028E+00	4.895E+00	5.715E+00	6.494E+00
ENE	2.741E-03	5.823E-03	9.840E-03	1.444E-02	1.477E-01	6.942E-01	1.217E+00	1.728E+00	2.229E+00	2.706E+00	3.162E+00	3.598E+00
E	2.352E-03	4.536E-03	7.179E-03	1.023E-02	9.866E-02	4.204E-01	7.055E-01	9.771E-01	1.233E+00	1.475E+00	1.705E+00	1.926E+00
ESE	2.142E-03	3.882E-03	5.972E-03	8.160E-03	7.601E-02	3.220E-01	5.336E-01	7.319E-01	9.216E-01	1.103E+00	1.277E+00	1.444E+00
SE	2.046E-03	3.894E-03	6.109E-03	8.537E-03	8.073E-02	3.561E-01	6.237E-01	8.835E-01	1.136E+00	1.380E+00	1.616E+00	1.844E+00
SSE	2.103E-03	4.031E-03	6.371E-03	8.920E-03	8.779E-02	4.134E-01	7.273E-01	1.033E+00	1.327E+00	1.610E+00	1.884E+00	2.148E+00
S	2.290E-03	5.028E-03	8.669E-03	1.280E-02	1.444E-01	7.069E-01	1.256E+00	1.819E+00	2.348E+00	2.848E+00	3.324E+00	3.777E+00
SSW	2.343E-03	4.997E-03	8.512E-03	1.253E-02	1.402E-01	7.391E-01	1.357E+00	1.899E+00	2.421E+00	2.923E+00	3.405E+00	3.870E+00
SW	2.291E-03	4.848E-03	8.024E-03	1.150E-02	1.300E-01	6.827E-01	1.183E+00	1.684E+00	2.168E+00	2.635E+00	3.085E+00	3.520E+00
WSW	2.231E-03	4.438E-03	7.180E-03	1.021E-02	9.489E-02	4.802E-01	8.132E-01	1.117E+00	1.395E+00	1.656E+00	1.903E+00	2.138E+00
W	2.236E-03	4.387E-03	7.057E-03	1.003E-02	8.895E-02	3.297E-01	5.115E-01	6.827E-01	8.449E-01	9.981E-01	1.144E+00	1.282E+00
WNW	2.353E-03	4.725E-03	8.398E-03	1.328E-02	1.388E-01	3.948E-01	5.833E-01	8.073E-01	1.013E+00	1.204E+00	1.382E+00	1.550E+00
NW	2.522E-03	5.155E-03	9.167E-03	1.448E-02	1.578E-01	5.865E-01	8.482E-01	1.100E+00	1.333E+00	1.551E+00	1.757E+00	1.953E+00
NNW	2.924E-03	6.906E-03	1.300E-02	2.029E-02	2.136E-01	1.153E+00	1.930E+00	2.525E+00	3.073E+00	3.584E+00	4.067E+00	4.523E+00

TOTAL DOSE COMMITMENT IS 2.442E+02 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 17
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS VEG. ING EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	3.948E-02	1.019E-01	1.982E-01	3.155E-01	3.525E+00	1.905E+01	3.364E+01	4.699E+01	5.919E+01	7.057E+01	8.131E+01	9.151E+01
NNE	3.830E-02	9.612E-02	1.800E-01	2.860E-01	3.243E+00	1.657E+01	3.080E+01	4.315E+01	5.450E+01	6.501E+01	7.487E+01	8.417E+01
NE	3.577E-02	8.656E-02	1.584E-01	2.448E-01	2.693E+00	1.372E+01	2.503E+01	3.589E+01	4.654E+01	5.656E+01	6.604E+01	7.504E+01
ENE	3.167E-02	6.729E-02	1.137E-01	1.669E-01	1.707E+00	8.022E+00	1.406E+01	1.997E+01	2.575E+01	3.127E+01	3.654E+01	4.157E+01
E	2.718E-02	5.241E-02	8.296E-02	1.182E-01	1.140E+00	4.858E+00	8.152E+00	1.129E+01	1.425E+01	1.705E+01	1.970E+01	2.226E+01
ESE	2.475E-02	4.486E-02	6.901E-02	9.430E-02	8.783E-01	3.721E+00	6.166E+00	8.458E+00	1.065E+01	1.274E+01	1.7475E+01	1.668E+01
SE	2.364E-02	4.500E-02	7.059E-02	9.865E-02	9.328E-01	4.115E+00	7.207E+00	1.021E+01	1.313E+01	1.595E+01	1.868E+01	2.131E+01
SSE	2.430E-02	4.658E-02	7.362E-02	1.031E-01	1.014E+00	4.777E+00	8.404E+00	1.194E+01	1.534E+01	1.860E+01	2.177E+01	2.482E+01
S	2.646E-02	5.810E-02	1.002E-01	1.479E-01	1.668E+00	8.168E+00	1.452E+01	2.101E+01	2.713E+01	3.291E+01	3.841E+01	4.365E+01
SSW	2.708E-02	5.775E-02	9.836E-02	1.448E-01	1.620E+00	8.541E+00	1.568E+01	2.195E+01	2.798E+01	3.377E+01	3.935E+01	4.472E+01
SW	2.647E-02	5.602E-02	9.272E-02	1.329E-01	1.502E+00	7.888E+00	1.367E+01	1.946E+01	2.506E+01	3.044E+01	3.565E+01	4.067E+01
WSW	2.578E-02	5.128E-02	8.297E-02	1.180E-01	1.096E+00	5.549E+00	9.397E+00	1.290E+01	1.611E+01	1.913E+01	2.199E+01	2.471E+01
W	2.583E-02	5.069E-02	8.154E-02	1.159E-01	1.028E+00	3.810E+00	5.911E+00	7.889E+00	9.763E+00	1.153E+01	1.321E+01	1.481E+01
WNW	2.719E-02	5.460E-02	9.705E-02	1.535E-01	1.604E+00	4.562E+00	6.741E+00	9.328E+00	1.171E+01	1.391E+01	1.597E+01	1.791E+01
NW	2.914E-02	5.957E-02	1.059E-01	1.674E-01	1.824E+00	6.777E+00	9.801E+00	1.272E+01	1.540E+01	1.792E+01	2.031E+01	2.257E+01
NNW	3.378E-02	7.981E-02	1.502E-01	2.344E-01	2.468E+00	1.332E+01	2.230E+01	2.917E+01	3.551E+01	4.142E+01	4.699E+01	5.226E+01

TOTAL DOSE COMMITMENT IS 2.822E+03 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow OI CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 18
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MEAT ING EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	2.941E-05	7.589E-05	1.477E-04	2.350E-04	2.625E-03	1.419E-02	2.506E-02	3.500E-02	4.409E-02	5.257E-02	6.057E-02	6.816E-02
NNE	2.853E-05	7.160E-05	1.341E-04	2.130E-04	2.416E-03	1.234E-02	2.294E-02	3.214E-02	4.059E-02	4.843E-02	5.577E-02	6.270E-02
NE	2.664E-05	6.448E-05	1.180E-04	1.823E-04	2.006E-03	1.022E-02	1.864E-02	2.673E-02	3.467E-02	4.213E-02	4.919E-02	5.590E-02
ENE	2.359E-05	5.012E-05	8.470E-05	1.243E-04	1.271E-03	5.976E-03	1.048E-02	1.487E-02	1.918E-02	2.329E-02	2.722E-02	3.097E-02
E	2.025E-05	3.904E-05	6.180E-05	8.802E-05	8.492E-04	3.619E-03	6.072E-03	8.411E-03	1.061E-02	1.270E-02	1.467E-02	1.658E-02
ESE	1.844E-05	3.341E-05	5.140E-05	7.024E-05	6.543E-04	2.772E-03	4.593E-03	6.300E-03	7.933E-03	9.493E-03	1.099E-02	1.243E-02
SE	1.761E-05	3.352E-05	5.258E-05	7.349E-05	6.949E-04	3.065E-03	5.369E-03	7.605E-03	9.777E-03	1.188E-02	1.391E-02	1.588E-02
SSE	1.810E-05	3.469E-05	5.484E-05	7.677E-05	7.557E-04	3.558E-03	6.260E-03	8.892E-03	1.142E-02	1.386E-02	1.622E-02	1.849E-02
S	1.971E-05	4.328E-05	7.462E-05	1.102E-04	1.243E-03	6.085E-03	1.081E-02	1.565E-02	2.021E-02	2.451E-02	2.861E-02	3.251E-02
SSW	2.017E-05	4.302E-05	7.327E-05	1.079E-04	1.206E-03	6.362E-03	1.168E-02	1.635E-02	2.084E-02	2.516E-02	2.931E-02	3.331E-02
SW	1.972E-05	4.173E-05	6.907E-05	9.897E-05	1.119E-05	5.876E-03	1.018E-02	1.450E-02	1.866E-02	2.268E-02	2.655E-02	3.030E-02
WSW	1.921E-05	3.820E-05	6.180E-05	8.789E-05	8.168E-04	4.134E-03	6.999E-03	9.612E-03	1.200E-02	1.425E-02	1.638E-02	1.840E-02
W	1.924E-05	3.776E-05	6.074E-05	8.637E-05	7.656E-04	2.838E-03	4.403E-03	5.876E-03	7.272E-03	8.591E-03	9.643E-03	1.103E-02
WNW	2.025E-05	4.067E-05	7.229E-05	1.143E-04	1.195E-03	3.398E-03	5.021E-03	6.948E-03	8.723E-03	1.036E-02	1.190E-02	1.334E-02
NW	2.171E-05	4.437E-05	7.891E-05	1.247E-04	1.358E-03	5.048E-03	7.300E-03	9.471E-03	1.147E-02	1.335E-02	1.513E-02	1.681E-02
NNW	2.516E-05	5.945E-05	1.119E-04	1.746E-04	1.838E-03	9.922E-03	1.661E-02	2.173E-02	2.645E-02	3.085E-02	3.500E-02	3.893E-02

TOTAL DOSE COMMITMENT IS 2.102E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 19
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MEAT ING EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR.

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	3.398E-04	8.770E-04	1.706E-03	2.716E-03	3.034E-02	1.640E-01	2.895E-01	4.044E-01	5.095E-01	6.075E-01	6.999E-01	7.877E-01
NNE	3.297E-04	8.273E-04	1.549E-03	2.462E-03	2.792E-02	1.426E-01	2.651E-01	3.714E-01	4.691E-01	5.596E-01	6.445E-01	7.245E-01
NE	3.079E-04	7.451E-04	1.363E-03	2.107E-03	2.318E-02	1.181E-01	2.154E-01	3.089E-01	4.006E-01	4.868E-01	5.684E-01	6.459E-01
ENE	2.726E-04	5.792E-04	9.787E-04	1.436E-03	1.469E-02	6.905E-02	1.211E-01	1.719E-01	2.217E-01	2.691E-01	3.145E-01	3.578E-01
E	2.340E-04	4.512E-04	7.141E-04	1.017E-03	9.813E-03	4.181E-02	7.017E-02	9.719E-02	1.226E-01	1.467E-01	1.696E-01	1.916E-01
ESE	2.130E-04	3.861E-04	5.940E-04	8.116E-04	7.560E-03	3.203E-02	5.308E-02	7.280E-02	9.166E-02	1.097E-01	1.270E-01	1.436E-01
SE	2.035E-04	3.873E-04	6.076E-04	8.491E-04	8.029E-03	3.542E-02	6.204E-02	8.788E-02	1.130E-01	1.373E-01	1.608E-01	1.834E-01
SSE	2.092E-04	4.009E-04	6.336E-04	8.871E-04	8.732E-03	4.111E-02	7.234E-02	1.028E-01	1.320E-01	1.601E-01	1.874E-01	2.136E-01
S	2.277E-04	5.001E-04	8.622E-04	1.273E-03	1.436E-02	7.031E-02	1.250E-01	1.809E-01	2.335E-01	2.833E-01	3.306E-01	3.757E-01
SSW	2.331E-04	4.971E-04	8.466E-04	1.247E-03	1.394E-02	7.351E-02	1.350E-01	1.889E-01	2.408E-01	2.907E-01	3.387E-01	3.849E-01
SW	2.278E-04	4.822E-04	7.981E-04	1.144E-03	1.293E-02	6.790E-02	1.176E-01	1.675E-01	2.157E-01	2.620E-01	3.068E-01	3.501E-01
WSW	2.219E-04	4.414E-04	7.142E-04	1.016E-03	9.438E-03	4.777E-02	8.088E-02	1.111E-01	1.387E-01	1.647E-01	1.893E-01	2.126E-01
W	2.224E-04	4.363E-04	7.018E-04	9.980E-04	8.847E-03	3.280E-02	5.088E-02	6.790E-02	8.403E-02	9.928E-02	1.137E-01	1.275E-01
WNW	2.340E-04	4.700E-04	8.353E-04	1.321E-03	1.380E-02	3.926E-02	5.802E-02	8.029E-02	1.008E-01	1.197E-01	1.375E-01	1.542E-01
NW	2.509E-04	5.128E-04	9.118E-04	1.441E-03	1.570E-02	5.833E-02	8.436E-02	1.094E-01	1.326E-01	1.543E-01	1.748E-01	1.943E-01
NNW	2.908E-04	6.869E-04	1.293E-03	2.018E-03	2.124E-02	1.147E-01	1.919E-01	2.511E-01	3.056E-01	3.565E-01	4.045E-01	4.498E-01

TOTAL DOSE COMMITMENT IS 2.429E+01 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow OI CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 20
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MILK ING EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

TOTAL DOSE COMMITMENT IS 0.000E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow Oil
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 21
06/02/10

TIME STEP-NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MILK ING EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

TOTAL DOSE COMMITMENT IS 0.000E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC MIL

PAGE 22
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

SUMMARY PRINT OF POPULATION DOSES COMPUTED FOR TSTEP 1--DOSES SHOWN ARE ANNUAL POPULATION DOSE COMMITMENTS. PERSON-REM PER YEAR

DOSES RECEIVED BY PEOPLE WITHIN 80 KILOMETERS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER.	KIDNEY	BRONCHI
INHAL.	2.727E-01	2.209E+00	3.530E-02	1.657E+00	7.965E-01	1.983E+02
GROUND	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02
CLOUD	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00
VEG. ING	1.657E+00	1.914E+01	1.657E+00	5.690E+00	4.635E+00	1.657E+00
MEAT ING	1.152E-01	1.332E+00	1.152E-01	3.958E-01	3.224E-01	1.152E-01
MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RNPLUS50	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTALS	-3.504E+00	-2.414E+01	3.266E+00	-9.202E+00	7.213E+00	-2.015E+02

DOSES RECEIVED BY PEOPLE BEYOND 80 KILOMETERS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INHAL.	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GROUND	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CLOUD	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
VEG. ING	2.426E+02	2.803E+03	2.426E+02	8.331E+02	6.786E+02	2.426E+02
MEAT ING	1.987E+00	2.296E+01	1.987E+00	6.824E+00	5.558E+00	1.987E+00
MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RNPLUS50	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTALS	2.446E+02	2.826E+03	2.446E+02	8.399E+02	6.841E+02	2.446E+02

TOTAL DOSES COMPUTED OVER ALL POPULATIONS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INHAL.	2.727E-01	2.209E+00	3.530E-02	1.657E+00	7.965E-01	1.983E+02
GROUND	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02
CLOUD	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00
VEG. ING	2.442E+02	2.822E+03	2.442E+02	8.388E+02	6.832E+02	2.442E+02
MEAT ING	2.102E+00	2.429E+01	2.102E+00	7.220E+00	5.881E+00	2.102E+00
MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RNPLUS50	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTALS	2.481E+02	2.850E+03	2.478E+02	8.491E+02	6.913E+02	4.461E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 23
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1. 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 1 NAME=R1 X= -1.2KM, Y= -0.4KM, Z= 0.0M, DIST= 1.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL

PAGE 24
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 1 NAME=R1

X= -1.2KM, Y= -0.4KM, Z= 0.0M, DIST= 1.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	5.47E+00	1.62E-02	1.53E-03	8.43E-02	3.28E-02	9.10E+01
INFANT	GROUND	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03
INFANT	CLOUD	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	5.61E+00	1.56E-01	1.42E-01	2.24E-01	1.73E-01	9.11E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	5.46E+00	1.23E-02	7.13E-04	3.75E-02	1.54E-02	9.10E+01
CHILD	GROUND	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03
CHILD	CLOUD	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01
CHILD	VEG. ING	1.10E-03	1.28E-02	3.79E-03	3.79E-03	3.09E-03	0.00E+00
CHILD	MEAT ING	2.23E-04	2.58E-03	7.66E-04	7.66E-04	6.24E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	5.60E+00	1.68E-01	1.45E-01	1.82E-01	1.59E-01	9.11E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	5.46E+00	3.03E-02	3.06E-04	1.61E-02	7.72E-03	9.10E+01
TEENAGE	GROUND	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03
TEENAGE	CLOUD	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01
TEENAGE	VEG. ING	1.83E-03	2.11E-02	6.27E-03	6.27E-03	5.11E-03	0.00E+00
TEENAGE	MEAT ING	3.62E-04	4.18E-03	1.24E-03	1.24E-03	1.01E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	5.60E+00	1.96E-01	1.48E-01	1.64E-01	1.54E-01	9.11E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	5.46E+00	1.79E-02	2.55E-04	1.34E-02	6.43E-03	9.10E+01
ADULT	GROUND	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03
ADULT	CLOUD	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01	1.31E-01
ADULT	VEG. ING	2.52E-03	2.92E-02	8.66E-03	8.66E-03	7.06E-03	0.00E+00
ADULT	MEAT ING	6.33E-04	7.31E-03	2.17E-03	2.17E-03	1.77E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	5.61E+00	1.94E-01	1.51E-01	1.64E-01	1.55E-01	9.11E+01

1REGION: Crow Butte Three Crow OI
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 25
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 2 NAME=R2

X= -2.0KM, Y= 2.0KM, Z= 0.0M, DIST= 2.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL PAGE 26
 TIME STEP NUMBER 1, 10-Year Action Perio 06/02/10
 DURATION IN YRS IS... 5.0

NUMBER 2 NAME=R2 X= -2.0KM, Y= 2.0KM, Z= 0.0M, DIST= 2.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	3.94E+00	2.43E-02	2.28E-03	1.26E-01	4.91E-02	6.55E+01
INFANT	GROUND	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03
INFANT	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	4.11E+00	1.97E-01	1.75E-01	2.99E-01	2.22E-01	6.56E+01
AGE	PATHWAY	EFFECTIV	BONE	Avg.Lung	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	3.93E+00	1.84E-02	1.06E-03	5.61E-02	2.31E-02	6.55E+01
CHILD	GROUND	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03
CHILD	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01
CHILD	VEG. ING	1.65E-03	1.91E-02	5.68E-03	5.68E-03	4.63E-03	0.00E+00
CHILD	MEAT ING	3.34E-04	3.86E-03	1.15E-03	1.15E-03	9.35E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	4.11E+00	2.14E-01	1.81E-01	2.36E-01	2.02E-01	6.56E+01
AGE	PATHWAY	EFFECTIV	BONE	Avg.Lung	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	3.93E+00	4.55E-02	4.56E-04	2.41E-02	1.16E-02	6.55E+01
TEENAGE	GROUND	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03
TEENAGE	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01
TEENAGE	VEG. ING	2.74E-03	3.16E-02	9.40E-03	9.40E-03	7.65E-03	0.00E+00
TEENAGE	MEAT ING	5.42E-04	6.27E-03	1.86E-03	1.86E-03	1.52E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	4.11E+00	2.56E-01	1.85E-01	2.08E-01	1.94E-01	6.56E+01
AGE	PATHWAY	EFFECTIV	BONE	Avg.Lung	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	3.93E+00	2.67E-02	3.80E-04	2.01E-02	9.63E-03	6.55E+01
ADULT	GROUND	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03	6.99E-03
ADULT	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01
ADULT	VEG. ING	3.78E-03	4.37E-02	1.30E-02	1.30E-02	1.06E-02	0.00E+00
ADULT	MEAT ING	9.48E-04	1.10E-02	3.26E-03	3.26E-03	2.65E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	4.11E+00	2.54E-01	1.90E-01	2.09E-01	1.96E-01	6.56E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 27
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1. 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 3. NAME=R3 X= -1.9KM, Y= 2.7KM, Z= 0.0M, DIST= 3.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors. DATA: TC.MIL PAGE 28
 06/02/10 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 3 NAME=R3 X= -1.9KM, Y= 2.7KM, Z= 0.0M, DIST= 3.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	4.97E+00	3.21E-02	3.01E-03	1.67E-01	6.49E-02	8.27E+01
INFANT	GROUND	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03
INFANT	CLOUD	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	5.21E+00	2.69E-01	2.40E-01	4.04E-01	3.02E-01	8.29E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	4.97E+00	2.44E-02	1.41E-03	7.42E-02	3.05E-02	8.27E+01
CHILD	GROUND	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03
CHILD	CLOUD	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01
CHILD	VEG. ING	2.19E-03	2.53E-02	7.51E-03	7.51E-03	6.11E-03	0.00E+00
CHILD	MEAT ING	4.42E-04	5.10E-03	1.52E-03	1.52E-03	1.24E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	5.21E+00	2.91E-01	2.47E-01	3.20E-01	2.75E-01	8.29E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	4.97E+00	6.01E-02	6.03E-04	3.18E-02	1.53E-02	8.27E+01
TEENAGE	GROUND	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03
TEENAGE	CLOUD	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01
TEENAGE	VEG. ING	3.62E-03	4.18E-02	1.24E-02	1.24E-02	1.01E-02	0.00E+00
TEENAGE	MEAT ING	7.17E-04	8.28E-03	2.46E-03	2.46E-03	2.00E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	5.21E+00	3.47E-01	2.52E-01	2.83E-01	2.64E-01	8.29E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	4.97E+00	3.53E-02	5.02E-04	2.65E-02	1.27E-02	8.27E+01
ADULT	GROUND	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03	8.91E-03
ADULT	CLOUD	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01
ADULT	VEG. ING	4.99E-03	5.77E-02	1.71E-02	1.71E-02	1.40E-02	0.00E+00
ADULT	MEAT ING	1.25E-03	1.45E-02	4.30E-03	4.30E-03	3.50E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	5.21E+00	3.44E-01	2.59E-01	2.85E-01	2.67E-01	8.29E+01

1REGION: Crow Butte Three Crow Cl CODE: MILDOS-AREA (02/97) PAGE 29
METSET: DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 4 NAME=R4 X= -3.3KM, Y= 2.8KM, Z= 0.0M, DIST= 4.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow OI
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 30
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 4 NAME=R4

X= -3.3KM, Y= 2.8KM, Z= 0.0M, DIST= 4.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.51E+00	3.39E-02	3.18E-03	1.76E-01	6.84E-02	4.17E+01
INFANT	GROUND	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03
INFANT	CLOUD	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.71E+00	2.27E-01	1.97E-01	3.69E-01	2.62E-01	4.19E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.51E+00	2.57E-02	1.48E-03	7.82E-02	3.22E-02	4.17E+01
CHILD	GROUND	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03
CHILD	CLOUD	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01
CHILD	VEG. ING	2.30E-03	2.66E-02	7.92E-03	7.92E-03	6.45E-03	0.00E+00
CHILD	MEAT ING	4.66E-04	5.38E-03	1.60E-03	1.60E-03	1.30E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.70E+00	2.51E-01	2.04E-01	2.81E-01	2.33E-01	4.19E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.51E+00	6.33E-02	6.35E-04	3.35E-02	1.61E-02	4.17E+01
TEENAGE	GROUND	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03
TEENAGE	CLOUD	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01
TEENAGE	VEG. ING	3.81E-03	4.41E-02	1.31E-02	1.31E-02	1.07E-02	0.00E+00
TEENAGE	MEAT ING	7.56E-04	8.73E-03	2.60E-03	2.60E-03	2.11E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.70E+00	3.10E-01	2.10E-01	2.43E-01	2.22E-01	4.19E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.51E+00	3.73E-02	5.29E-04	2.79E-02	1.34E-02	4.17E+01
ADULT	GROUND	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03	4.74E-03
ADULT	CLOUD	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01	1.89E-01
ADULT	VEG. ING	5.27E-03	6.08E-02	1.81E-02	1.81E-02	1.47E-02	0.00E+00
ADULT	MEAT ING	1.32E-03	1.53E-02	4.54E-03	4.54E-03	3.70E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.71E+00	3.07E-01	2.17E-01	2.44E-01	2.25E-01	4.19E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL

PAGE 31
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 5 NAME=R5

X= -3.6KM, Y= 4.0KM, Z= 0.0M, DIST= 5.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1REGION: Crow Butte Three Crow OI CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 5 NAME=R5 X= -3.6KM, Y= 4.0KM, Z= 0.0M, DIST= 5.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.56E+00	4.01E-02	3.76E-03	2.08E-01	8.10E-02	4.24E+01
INFANT	GROUND	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03
INFANT	CLOUD	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.76E+00	2.47E-01	2.11E-01	4.16E-01	2.88E-01	4.26E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.55E+00	3.04E-02	1.76E-03	9.26E-02	3.81E-02	4.24E+01
CHILD	GROUND	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03
CHILD	CLOUD	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01
CHILD	VEG. ING	2.73E-03	3.15E-02	9.37E-03	9.37E-03	7.63E-03	0.00E+00
CHILD	MEAT ING	5.51E-04	6.37E-03	1.89E-03	1.89E-03	1.54E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.76E+00	2.76E-01	2.20E-01	3.11E-01	2.55E-01	4.26E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.55E+00	7.49E-02	7.52E-04	3.97E-02	1.91E-02	4.24E+01
TEENAGE	GROUND	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03
TEENAGE	CLOUD	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01
TEENAGE	VEG. ING	4.51E-03	5.21E-02	1.55E-02	1.55E-02	1.26E-02	0.00E+00
TEENAGE	MEAT ING	8.94E-04	1.03E-02	3.07E-03	3.07E-03	2.50E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.76E+00	3.45E-01	2.27E-01	2.66E-01	2.41E-01	4.26E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.55E+00	4.41E-02	6.27E-04	3.31E-02	1.59E-02	4.24E+01
ADULT	GROUND	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03	4.83E-03
ADULT	CLOUD	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01
ADULT	VEG. ING	6.23E-03	7.20E-02	2.14E-02	2.14E-02	1.74E-02	0.00E+00
ADULT	MEAT ING	1.56E-03	1.81E-02	5.37E-03	5.37E-03	4.37E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.76E+00	3.41E-01	2.35E-01	2.67E-01	2.45E-01	4.26E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 33
 METSET: DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS 5.0

NUMBER 6 NAME=CRAWFORD X= -4.4 KM, Y= 4.4 KM, Z= 0.0M, DIST= 6.3 KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 34
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 6 NAME=CRAWFORD

X= -4.4 KM, Y= 4.4 KM, Z= 0.0M, DIST= 6.3 KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.42E+00	4.26E-02	4.00E-03	2.21E-01	8.60E-02	4.00E+01
INFANT	GROUND	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03
INFANT	CLOUD	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.62E+00	2.51E-01	2.12E-01	4.29E-01	2.94E-01	4.02E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.41E+00	3.23E-02	1.86E-03	9.83E-02	4.05E-02	4.00E+01
CHILD	GROUND	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03
CHILD	CLOUD	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01
CHILD	VEG. ING	2.90E-03	3.35E-02	9.95E-03	9.95E-03	8.10E-03	0.00E+00
CHILD	MEAT ING	5.85E-04	6.76E-03	2.01E-03	2.01E-03	1.64E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.62E+00	2.81E-01	2.22E-01	3.19E-01	2.58E-01	4.02E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.41E+00	7.96E-02	7.99E-04	4.21E-02	2.02E-02	4.00E+01
TEENAGE	GROUND	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03
TEENAGE	CLOUD	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01
TEENAGE	VEG. ING	4.79E-03	5.54E-02	1.65E-02	1.65E-02	1.34E-02	0.00E+00
TEENAGE	MEAT ING	9.50E-04	1.10E-02	3.26E-03	3.26E-03	2.66E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.62E+00	3.54E-01	2.29E-01	2.70E-01	2.45E-01	4.02E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.41E+00	4.68E-02	6.66E-04	3.51E-02	1.69E-02	4.00E+01
ADULT	GROUND	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03
ADULT	CLOUD	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01
ADULT	VEG. ING	6.62E-03	7.64E-02	2.27E-02	2.27E-02	1.85E-02	0.00E+00
ADULT	MEAT ING	1.66E-03	1.92E-02	5.70E-03	5.70E-03	4.64E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.62E+00	3.51E-01	2.37E-01	2.72E-01	2.48E-01	4.02E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 35
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 7 NAME=R7 X=-2.0KM, Y= 4.0KM, Z= 0.0M, DIST= 4.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YF

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL

PAGE 36
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS .5. 5.0

NUMBER 7 NAME=R7

X= -2.0KM, Y= 4.0KM, Z= 0.0M, DIST= 4.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	4.28E+00	4.61E-02	4.32E-03	2.39E-01	9.30E-02	7.11E+01
INFANT	GROUND	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03
INFANT	CLOUD	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	4.57E+00	3.31E-01	2.89E-01	5.24E-01	3.77E-01	7.14E+01
AGE	PATHWAY	EFFECTIV	BONE	Avg.Lung	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	4.27E+00	3.49E-02	2.02E-03	1.06E-01	4.38E-02	7.11E+01
CHILD	GROUND	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03
CHILD	CLOUD	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01
CHILD	VEG. ING	3.13E-03	3.62E-02	1.08E-02	1.08E-02	8.76E-03	0.00E+00
CHILD	MEAT ING	6.33E-04	7.31E-03	2.17E-03	2.17E-03	1.77E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	4.56E+00	3.63E-01	2.99E-01	4.04E-01	3.39E-01	7.14E+01
AGE	PATHWAY	EFFECTIV	BONE	Avg.Lung	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	4.27E+00	8.60E-02	8.64E-04	4.56E-02	2.19E-02	7.11E+01
TEENAGE	GROUND	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03
TEENAGE	CLOUD	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01
TEENAGE	VEG. ING	5.18E-03	5.99E-02	1.78E-02	1.78E-02	1.45E-02	0.00E+00
TEENAGE	MEAT ING	1.03E-03	1.19E-02	3.53E-03	3.53E-03	2.87E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	4.56E+00	4.42E-01	3.07E-01	3.51E-01	3.24E-01	7.14E+01
AGE	PATHWAY	EFFECTIV	BONE	Avg.Lung	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	4.27E+00	5.06E-02	7.20E-04	3.80E-02	1.82E-02	7.11E+01
ADULT	GROUND	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03
ADULT	CLOUD	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01
ADULT	VEG. ING	7.15E-03	8.27E-02	2.46E-02	2.46E-02	2.00E-02	0.00E+00
ADULT	MEAT ING	1.79E-03	2.07E-02	6.16E-03	6.16E-03	5.02E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	4.57E+00	4.38E-01	3.16E-01	3.53E-01	3.28E-01	7.14E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA
METSET: ptors DATA: TC_MIL

PAGE 37
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.5

NUMBER 8 NAME=R8

X= -2.0KM, Y= 3.6KM, Z= 0.0M, DIST= 4.1KM, TRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MREM/YEAR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL PAGE 38
 06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 6 NAME=R8 X= -2.0KM, Y= 3.6KM, Z= 0.0M, DIST= 4.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	4.45E+00	4.22E-02	3.96E-03	2.19E-01	8.52E-02	7.39E+01
INFANT	GROUND	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03
INFANT	CLOUD	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	4.72E+00	3.18E-01	2.80E-01	4.95E-01	3.61E-01	7.42E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	4.44E+00	3.20E-02	1.85E-03	9.74E-02	4.01E-02	7.39E+01
CHILD	GROUND	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03
CHILD	CLOUD	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01
CHILD	VEG. ING	2.87E-03	3.32E-02	9.85E-03	9.85E-03	8.03E-03	0.00E+00
CHILD	MEAT ING	5.80E-04	6.70E-03	1.99E-03	1.99E-03	1.62E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	4.72E+00	3.48E-01	2.90E-01	3.85E-01	3.26E-01	7.42E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	4.44E+00	7.88E-02	7.91E-04	4.17E-02	2.00E-02	7.39E+01
TEENAGE	GROUND	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03
TEENAGE	CLOUD	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01
TEENAGE	VEG. ING	4.75E-03	5.48E-02	1.63E-02	1.63E-02	1.33E-02	0.00E+00
TEENAGE	MEAT ING	9.41E-04	1.09E-02	3.23E-03	3.23E-03	2.63E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	4.72E+00	4.21E-01	2.96E-01	3.37E-01	3.12E-01	7.42E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	4.44E+00	4.64E-02	6.59E-04	3.48E-02	1.67E-02	7.39E+01
ADULT	GROUND	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03	8.24E-03
ADULT	CLOUD	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01
ADULT	VEG. ING	6.55E-03	7.57E-02	2.25E-02	2.25E-02	1.83E-02	0.00E+00
ADULT	MEAT ING	1.64E-03	1.90E-02	5.65E-03	5.65E-03	4.60E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	4.72E+00	4.17E-01	3.05E-01	3.39E-01	3.16E-01	7.42E+01

REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 39
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1. 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 9 NAME=R9 X= -1.6KM, Y= 3.2KM, Z= 0.0M, DIST= 3.6KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 40
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Peric DURATION IN YRS IS... 5.0

NUMBER 9 NAME=R9 X= -1.6KM, Y= 3.2KM, Z= 0.0M, DIST= 3.6KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	6.21E+00	3.95E-02	3.70E-03	2.05E-01	7.98E-02	1.03E+02
INFANT	GROUND	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02
INFANT	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	6.51E+00	3.43E-01	3.07E-01	5.09E-01	3.83E-01	1.04E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	6.20E+00	3.00E-02	1.73E-03	9.12E-02	3.75E-02	1.03E+02
CHILD	GROUND	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02
CHILD	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
CHILD	VEG. ING	2.69E-03	3.10E-02	9.23E-03	9.23E-03	7.52E-03	0.00E+00
CHILD	MEAT ING	5.43E-04	6.27E-03	1.86E-03	1.86E-03	1.52E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	6.51E+00	3.71E-01	3.16E-01	4.06E-01	3.50E-01	1.04E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	6.20E+00	7.38E-02	7.41E-04	3.91E-02	1.88E-02	1.03E+02
TEENAGE	GROUND	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02
TEENAGE	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
TEENAGE	VEG. ING	4.44E-03	5.13E-02	1.53E-02	1.53E-02	1.24E-02	0.00E+00
TEENAGE	MEAT ING	8.81E-04	1.02E-02	3.03E-03	3.03E-03	2.46E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	6.51E+00	4.39E-01	3.23E-01	3.61E-01	3.37E-01	1.04E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	6.20E+00	4.34E-02	6.17E-04	3.26E-02	1.56E-02	1.03E+02
ADULT	GROUND	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02	1.12E-02
ADULT	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
ADULT	VEG. ING	6.14E-03	7.09E-02	2.11E-02	2.11E-02	1.72E-02	0.00E+00
ADULT	MEAT ING	1.54E-03	1.78E-02	5.29E-03	5.29E-03	4.31E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	6.51E+00	4.36E-01	3.31E-01	3.63E-01	3.41E-01	1.04E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (
 METSET: ptors DATA: TC-MIL

PAGE 41
05/02/10

TIME STEP NUMBER 1: 10-Year Action Period

DURATION IN YRS IS..... 5.0

NUMBER 1C NAME=R1C

X=-1.2KM Y= 2.8KM Z= 0.0M DIST= 3.0KM IPTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 42
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 10 NAME=R10 X= -1.2KM, Y= 2.8KM, Z= 0.0M, DIST= 3.0KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.09E+01	3.62E-02	3.39E-03	1.88E-01	7.31E-02	1.81E+02
INFANT	GROUND	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02
INFANT	CLOUD	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.12E+01	3.86E-01	3.53E-01	5.38E-01	4.23E-01	1.81E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.09E+01	2.75E-02	1.58E-03	8.36E-02	3.44E-02	1.81E+02
CHILD	GROUND	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02
CHILD	CLOUD	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01
CHILD	VEG. ING	2.46E-03	2.85E-02	8.46E-03	8.46E-03	6.89E-03	0.00E+00
CHILD	MEAT ING	4.97E-04	5.79E-03	1.71E-03	1.71E-03	1.39E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.12E+01	4.12E-01	3.62E-01	4.44E-01	3.93E-01	1.81E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.09E+01	6.77E-02	6.79E-04	3.58E-02	1.72E-02	1.81E+02
TEENAGE	GROUND	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02
TEENAGE	CLOUD	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01
TEENAGE	VEG. ING	4.07E-03	4.71E-02	1.40E-02	1.40E-02	1.14E-02	0.00E+00
TEENAGE	MEAT ING	8.07E-04	9.33E-03	2.77E-03	2.77E-03	2.26E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.12E+01	4.74E-01	3.67E-01	4.02E-01	3.81E-01	1.81E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.09E+01	3.98E-02	5.66E-04	2.99E-02	1.43E-02	1.81E+02
ADULT	GROUND	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02	1.84E-02
ADULT	CLOUD	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01
ADULT	VEG. ING	5.63E-03	6.50E-02	1.93E-02	1.93E-02	1.57E-02	0.00E+00
ADULT	MEAT ING	1.41E-03	1.63E-02	4.85E-03	4.85E-03	3.95E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.12E+01	4.71E-01	3.75E-01	4.04E-01	3.84E-01	1.81E+02

1REGION: Crow Butte Three Crow Cl
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 43
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 11 NAME=R11

X= -1.8KM, Y= 2.8KM, Z= 0.0M, DIST= 3.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 44
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1. 10-Year Action Period DURATION IN YRS IS 5.0

NUMBER 11 NAME=R11 X= -1.8KM Y= 2.8KM Z= 0.0M DIST= 3.3KM TRPTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MBREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	5.70E+00	3.32E-02	3.12E-03	1.73E-01	6.71E-02	9.48E+01
INFANT	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
INFANT	CLOUD	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	5.95E+00	2.88E-01	2.58E-01	4.28E-01	3.22E-01	9.50E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	5.69E+00	2.52E-02	1.45E-03	7.67E-02	3.16E-02	9.48E+01
CHILD	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
CHILD	CLOUD	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01
CHILD	VEG. ING	2.26E-03	2.61E-02	7.76E-03	7.76E-03	6.32E-03	0.00E+00
CHILD	MEAT ING	4.57E-04	5.28E-03	1.57E-03	1.57E-03	1.28E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	5.95E+00	3.12E-01	2.66E-01	3.41E-01	2.94E-01	9.50E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	5.69E+00	6.21E-02	6.23E-04	3.29E-02	1.58E-02	9.48E+01
TEENAGE	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
TEENAGE	CLOUD	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01
TEENAGE	VEG. ING	3.74E-03	4.32E-02	1.28E-02	1.28E-02	1.05E-02	0.00E+00
TEENAGE	MEAT ING	7.41E-04	8.56E-03	2.55E-03	2.55E-03	2.07E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	5.95E+00	3.69E-01	2.71E-01	3.03E-01	2.83E-01	9.50E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	5.69E+00	3.65E-02	5.19E-04	2.74E-02	1.32E-02	9.48E+01
ADULT	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
ADULT	CLOUD	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01	2.45E-01
ADULT	VEG. ING	5.16E-03	5.97E-02	1.77E-02	1.77E-02	1.44E-02	0.00E+00
ADULT	MEAT ING	1.30E-03	1.50E-02	4.45E-03	4.45E-03	3.62E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	5.95E+00	3.66E-01	2.78E-01	3.05E-01	2.86E-01	9.50E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 45
 METSET: DATA: TC.MIL 06/02/10
 ptors
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 12 NAME=R12 X= -0.3KM, Y= 2.3KM, Z= 0.0M, DIST= 2.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC-MIL
 TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 12 NAME=R12 X= -0.3KM, Y= 2.3KM, Z= 0.0M, DIST= 2.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.32E+01	3.43E-02	3.21E-03	1.78E-01	6.93E-02	2.20E+02
INFANT	GROUND	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02
INFANT	CLOUD	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.36E+01	4.42E-01	4.10E-01	5.85E-01	4.76E-01	2.21E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.32E+01	2.60E-02	1.50E-03	7.92E-02	3.26E-02	2.20E+02
CHILD	GROUND	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02
CHILD	CLOUD	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01
CHILD	VEG. ING	2.33E-03	2.70E-02	8.01E-03	8.01E-03	6.53E-03	0.00E+00
CHILD	MEAT ING	4.71E-04	5.44E-03	1.62E-03	1.62E-03	1.32E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.36E+01	4.66E-01	4.18E-01	4.96E-01	4.48E-01	2.21E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.32E+01	6.41E-02	6.43E-04	3.39E-02	1.63E-02	2.20E+02
TEENAGE	GROUND	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02
TEENAGE	CLOUD	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01
TEENAGE	VEG. ING	3.86E-03	4.46E-02	1.33E-02	1.33E-02	1.08E-02	0.00E+00
TEENAGE	MEAT ING	7.65E-04	8.84E-03	2.63E-03	2.63E-03	2.14E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.36E+01	5.25E-01	4.24E-01	4.57E-01	4.36E-01	2.21E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.32E+01	3.77E-02	5.36E-04	2.83E-02	1.36E-02	2.20E+02
ADULT	GROUND	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02	2.27E-02
ADULT	CLOUD	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01	3.84E-01
ADULT	VEG. ING	5.33E-03	6.16E-02	1.83E-02	1.83E-02	1.49E-02	0.00E+00
ADULT	MEAT ING	1.34E-03	1.54E-02	4.59E-03	4.59E-03	3.74E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.36E+01	5.22E-01	4.31E-01	4.58E-01	4.39E-01	2.21E+02

1REGION: Crow Butte Three Crow OI
METSET: ptors

CODE: MILPOS-AREA (02/97)

PAGE 47

PAGE 47
06/02/10

TIME STEP NUMBER 1: 10-Year Action Period

DURATION IN YRS IS 5.0

NUMBER 13 NAME=813

X= -0.05KM Y= -1.55KM Z= 0.00M DIST= 1.5KM IPTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MBREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL PAGE 48
 TIME STEP NUMBER 1, 10-Year Action Perio 06/02/10
 DURATION IN YRS IS... 5.0

NUMBER 13 NAME=R13 X= 0.0KM, Y= 1.5KM, Z= 0.0M, DIST= 1.5KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.17E+01	2.47E-02	2.32E-03	1.28E-01	4.98E-02	3.61E+02
INFANT	GROUND	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02
INFANT	CLOUD	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.21E+01	3.94E-01	3.72E-01	4.98E-01	4.19E-01	3.62E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.17E+01	1.87E-02	1.08E-03	5.69E-02	2.34E-02	3.61E+02
CHILD	GROUND	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02
CHILD	CLOUD	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01
CHILD	VEG. ING	1.68E-03	1.94E-02	5.76E-03	5.76E-03	4.69E-03	0.00E+00
CHILD	MEAT ING	3.39E-04	3.91E-03	1.16E-03	1.16E-03	9.48E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.21E+01	4.12E-01	3.78E-01	4.33E-01	3.99E-01	3.62E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.17E+01	4.61E-02	4.63E-04	2.44E-02	1.17E-02	3.61E+02
TEENAGE	GROUND	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02
TEENAGE	CLOUD	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01
TEENAGE	VEG. ING	2.77E-03	3.21E-02	9.53E-03	9.53E-03	7.76E-03	0.00E+00
TEENAGE	MEAT ING	5.50E-04	6.35E-03	1.89E-03	1.89E-03	1.54E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.21E+01	4.54E-01	3.81E-01	4.05E-01	3.91E-01	3.62E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.17E+01	2.71E-02	3.86E-04	2.03E-02	9.76E-03	3.61E+02
ADULT	GROUND	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02	3.39E-02
ADULT	CLOUD	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01
ADULT	VEG. ING	3.83E-03	4.43E-02	1.32E-02	1.32E-02	1.07E-02	0.00E+00
ADULT	MEAT ING	9.61E-04	1.11E-02	3.30E-03	3.30E-03	2.69E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.21E+01	4.52E-01	3.86E-01	4.06E-01	3.93E-01	3.62E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 49
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 14 NAME=R14 X= 0.5KM, Y= 1.0KM, Z= 0.0M, DIST= 1.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
METSET: DATA: TC.MIL

PAGE 50
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 14 NAME=R14

X= 0.5KM, Y= 1.0KM, Z= 0.0M, DIST= 1.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.27E+01	2.03E-02	1.91E-03	1.05E-01	4.09E-02	3.78E+02
INFANT	GROUND	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
INFANT	CLOUD	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.30E+01	3.04E-01	2.85E-01	3.89E-01	3.24E-01	3.79E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.27E+01	1.54E-02	8.91E-04	4.68E-02	1.93E-02	3.78E+02
CHILD	GROUND	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
CHILD	CLOUD	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01
CHILD	VEG. ING	1.38E-03	1.59E-02	4.74E-03	4.74E-03	3.86E-03	0.00E+00
CHILD	MEAT ING	2.79E-04	3.22E-03	9.57E-04	9.57E-04	7.79E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.30E+01	3.18E-01	2.90E-01	3.36E-01	3.07E-01	3.79E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.27E+01	3.79E-02	3.82E-04	2.01E-02	9.63E-03	3.78E+02
TEENAGE	GROUND	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
TEENAGE	CLOUD	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01
TEENAGE	VEG. ING	2.28E-03	2.64E-02	7.83E-03	7.83E-03	6.38E-03	0.00E+00
TEENAGE	MEAT ING	4.52E-04	5.23E-03	1.55E-03	1.55E-03	1.26E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.30E+01	3.53E-01	2.93E-01	3.13E-01	3.01E-01	3.79E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.27E+01	2.23E-02	3.18E-04	1.67E-02	8.03E-03	3.78E+02
ADULT	GROUND	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
ADULT	CLOUD	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01
ADULT	VEG. ING	3.15E-03	3.64E-02	1.08E-02	1.08E-02	8.81E-03	0.00E+00
ADULT	MEAT ING	7.90E-04	9.13E-03	2.71E-03	2.71E-03	2.21E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.30E+01	3.51E-01	2.97E-01	3.14E-01	3.03E-01	3.79E+02

1REGION: Crow Butte Three Crow Ol
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 51
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 15 NAME=R15

X= 0.5KM, Y= 0.3KM, Z= 0.0M, DIST= 0.6KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1REGION: Crow Butte Three Crow Cl CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL
TIME STEP NUMBER 1, 10-Year-Action Perio

PAGE 52
06/02/10
DURATION IN YRS IS... 5.0

NUMBER 15 NAME=R15

X= 0.5KM, Y= 0.3KM, Z= 0.0M, DIST= 0.6KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.61E+01	1.69E-02	1.59E-03	8.77E-02	3.41E-02	4.36E+02
INFANT	GROUND	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02
INFANT	CLOUD	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.63E+01	2.12E-01	1.97E-01	2.83E-01	2.29E-01	4.36E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.61E+01	1.28E-02	7.43E-04	3.90E-02	1.60E-02	4.36E+02
CHILD	GROUND	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02
CHILD	CLOUD	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
CHILD	VEG. ING	1.15E-03	1.33E-02	3.94E-03	3.94E-03	3.21E-03	0.00E+00
CHILD	MEAT ING	2.32E-04	2.68E-03	7.97E-04	7.97E-04	6.49E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.63E+01	2.24E-01	2.01E-01	2.39E-01	2.15E-01	4.36E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.61E+01	3.16E-02	3.18E-04	1.67E-02	8.02E-03	4.36E+02
TEENAGE	GROUND	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02
TEENAGE	CLOUD	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
TEENAGE	VEG. ING	1.90E-03	2.20E-02	6.52E-03	6.52E-03	5.31E-03	0.00E+00
TEENAGE	MEAT ING	3.77E-04	4.35E-03	1.29E-03	1.29E-03	1.05E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.63E+01	2.53E-01	2.03E-01	2.20E-01	2.09E-01	4.36E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.61E+01	1.86E-02	2.65E-04	1.39E-02	6.69E-03	4.36E+02
ADULT	GROUND	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02	2.97E-02
ADULT	CLOUD	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
ADULT	VEG. ING	2.62E-03	3.03E-02	9.01E-03	9.01E-03	7.34E-03	0.00E+00
ADULT	MEAT ING	6.58E-04	7.60E-03	2.26E-03	2.26E-03	1.84E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.63E+01	2.52E-01	2.07E-01	2.20E-01	2.11E-01	4.36E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 53
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 16 NAME=R16 X= 1.3KM, Y= 0.3KM, Z= 0.0M, DIST= 1.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0
 NUMBER 16 NAME=R16 X= 1.3KM, Y= 0.3KM, Z= 0.0M, DIST= 1.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	7.46E+00	1.83E-02	1.72E-03	9.48E-02	3.69E-02	1.24E+02
INFANT	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
INFANT	CLOUD	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	7.63E+00	1.88E-01	1.71E-01	2.64E-01	2.06E-01	1.24E+02
CHILD	INHAL.	7.46E+00	1.38E-02	8.03E-04	4.21E-02	1.73E-02	1.24E+02
CHILD	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
CHILD	CLOUD	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01
CHILD	VEG. ING	1.24E-03	1.43E-02	4.26E-03	4.26E-03	3.47E-03	0.00E+00
CHILD	MEAT ING	2.51E-04	2.90E-03	8.61E-04	8.61E-04	7.02E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	7.63E+00	2.00E-01	1.75E-01	2.17E-01	1.91E-01	1.24E+02
TEENAGE	INHAL.	7.46E+00	3.41E-02	3.44E-04	1.81E-02	8.67E-03	1.24E+02
TEENAGE	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
TEENAGE	CLOUD	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01
TEENAGE	VEG. ING	2.05E-03	2.37E-02	7.05E-03	7.05E-03	5.75E-03	0.00E+00
TEENAGE	MEAT ING	4.07E-04	4.70E-03	1.40E-03	1.40E-03	1.14E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	7.63E+00	2.32E-01	1.78E-01	1.96E-01	1.85E-01	1.24E+02
ADULT	INHAL.	7.46E+00	2.01E-02	2.87E-04	1.51E-02	7.23E-03	1.24E+02
ADULT	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
ADULT	CLOUD	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01	1.57E-01
ADULT	VEG. ING	2.84E-03	3.28E-02	9.74E-03	9.74E-03	7.93E-03	0.00E+00
ADULT	MEAT ING	7.11E-04	8.22E-03	2.44E-03	2.44E-03	1.99E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	7.63E+00	2.30E-01	1.82E-01	1.97E-01	1.87E-01	1.24E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 55
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 17 NAME=R17 X= 1.3KM, Y= -0.3KM, Z= 0.0M, DIST= 1.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL

PAGE 56
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 17 NAME=R17

X= 1.3KM, Y= -0.3KM, Z= 0.0M, DIST= 1.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	4.68E+00	1.60E-02	1.51E-03	8.29E-02	3.22E-02	7.79E+01
INFANT	GROUND	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03
INFANT	CLOUD	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	4.79E+00	1.31E-01	1.17E-01	1.98E-01	1.47E-01	7.80E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	4.67E+00	1.21E-02	7.03E-04	3.68E-02	1.52E-02	7.79E+01
CHILD	GROUND	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03
CHILD	CLOUD	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
CHILD	VEG. ING	1.09E-03	1.25E-02	3.73E-03	3.73E-03	3.04E-03	0.00E+00
CHILD	MEAT ING	2.19E-04	2.53E-03	7.53E-04	7.53E-04	6.13E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	4.79E+00	1.42E-01	1.20E-01	1.56E-01	1.34E-01	7.80E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	4.67E+00	2.98E-02	3.01E-04	1.58E-02	7.58E-03	7.79E+01
TEENAGE	GROUND	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03
TEENAGE	CLOUD	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
TEENAGE	VEG. ING	1.80E-03	2.07E-02	6.17E-03	6.17E-03	5.02E-03	0.00E+00
TEENAGE	MEAT ING	3.56E-04	4.11E-03	1.22E-03	1.22E-03	9.96E-04	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	4.79E+00	1.70E-01	1.23E-01	1.38E-01	1.29E-01	7.80E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	4.67E+00	1.75E-02	2.51E-04	1.32E-02	6.32E-03	7.79E+01
ADULT	GROUND	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03	7.38E-03
ADULT	CLOUD	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
ADULT	VEG. ING	2.48E-03	2.86E-02	8.51E-03	8.51E-03	6.94E-03	0.00E+00
ADULT	MEAT ING	6.22E-04	7.19E-03	2.14E-03	2.14E-03	1.74E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	4.79E+00	1.69E-01	1.26E-01	1.39E-01	1.30E-01	7.80E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 57
METSET: ptors DATA: TC-MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS 5.0

NUMBER 18 NAME=EHLERS X= 0.7KM, Y= -0.1KM, Z= 0.0M, DIST= 0.7KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL
TIME STEP NUMBER 1, 10-Year Action Perio

PAGE 58
06/02/10

DURATION IN YRS IS... 5.0

NUMBER 18 NAME=EHLERS

X= 0.7KM, Y= -0.1KM, Z= 0.0M, DIST= 0.7KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.08E+01	1.59E-02	1.50E-03	8.27E-02	3.22E-02	1.81E+02
INFANT	GROUND	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
INFANT	CLOUD	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.10E+01	1.63E-01	1.49E-01	2.30E-01	1.80E-01	1.81E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.08E+01	1.21E-02	7.02E-04	3.68E-02	1.51E-02	1.81E+02
CHILD	GROUND	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
CHILD	CLOUD	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01
CHILD	VEG. ING	1.08E-03	1.25E-02	3.72E-03	3.72E-03	3.03E-03	0.00E+00
CHILD	MEAT ING	2.19E-04	2.53E-03	7.52E-04	7.52E-04	6.12E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.10E+01	1.75E-01	1.53E-01	1.89E-01	1.66E-01	1.81E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.08E+01	2.98E-02	3.01E-04	1.58E-02	7.57E-03	1.81E+02
TEENAGE	GROUND	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
TEENAGE	CLOUD	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01
TEENAGE	VEG. ING	1.79E-03	2.07E-02	6.15E-03	6.15E-03	5.01E-03	0.00E+00
TEENAGE	MEAT ING	3.55E-04	4.10E-03	1.22E-03	1.22E-03	9.94E-04	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.10E+01	2.02E-01	1.55E-01	1.71E-01	1.61E-01	1.81E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.08E+01	1.75E-02	2.51E-04	1.31E-02	6.31E-03	1.81E+02
ADULT	GROUND	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
ADULT	CLOUD	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01
ADULT	VEG. ING	2.47E-03	2.86E-02	8.50E-03	8.50E-03	6.92E-03	0.00E+00
ADULT	MEAT ING	6.21E-04	7.17E-03	2.13E-03	2.13E-03	1.74E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.10E+01	2.01E-01	1.58E-01	1.71E-01	1.63E-01	1.81E+02

1REGION: Crow Butte Three Crow Ol
METSET: ptors

CODE: MILDOS-AREA (02/97)
DATA: TC.MIL

PAGE 59
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 19 NAME=GIBBONS

X= 0.7KM, Y= 0.7KM, Z= 0.0M, DIST= 1.0KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	CLOUD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97) PAGE 60
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0
 NUMBER 19 NAME=GIBBONS X= 0.7KM, Y= 0.7KM, Z= 0.0M, DIST= 1.0KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.11E+01	1.91E-02	1.80E-03	9.92E-02	3.86E-02	3.51E+02
INFANT	GROUND	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02
INFANT	CLOUD	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.13E+01	2.64E-01	2.47E-01	3.44E-01	2.83E-01	3.52E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.11E+01	1.45E-02	8.39E-04	4.41E-02	1.81E-02	3.51E+02
CHILD	GROUND	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02
CHILD	CLOUD	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01
CHILD	VEG. ING	1.30E-03	1.50E-02	4.46E-03	4.46E-03	3.63E-03	0.00E+00
CHILD	MEAT ING	2.62E-04	3.03E-03	9.01E-04	9.01E-04	7.34E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.13E+01	2.77E-01	2.51E-01	2.94E-01	2.67E-01	3.52E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.11E+01	3.57E-02	3.60E-04	1.89E-02	9.07E-03	3.51E+02
TEENAGE	GROUND	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02
TEENAGE	CLOUD	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01
TEENAGE	VEG. ING	2.15E-03	2.48E-02	7.38E-03	7.38E-03	6.01E-03	0.00E+00
TEENAGE	MEAT ING	4.26E-04	4.92E-03	1.46E-03	1.46E-03	1.19E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.13E+01	3.10E-01	2.54E-01	2.72E-01	2.61E-01	3.52E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.11E+01	2.10E-02	3.00E-04	1.57E-02	7.56E-03	3.51E+02
ADULT	GROUND	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02
ADULT	CLOUD	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01	2.15E-01
ADULT	VEG. ING	2.97E-03	3.43E-02	1.02E-02	1.02E-02	8.30E-03	0.00E+00
ADULT	MEAT ING	7.44E-04	8.60E-03	2.56E-03	2.56E-03	2.08E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.13E+01	3.09E-01	2.58E-01	2.73E-01	2.63E-01	3.52E+02

METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 20 NAME=STETSON X= -0.5KM, Y= 1.2KM, Z= 0.0M, DIST= 1.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 20 NAME=STETSON X= -0.5KM, Y= 1.2KM, Z= 0.0M, DIST= 1.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.53E+01	2.03E-02	1.91E-03	1.06E-01	4.11E-02	2.55E+02
INFANT	GROUND	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02
INFANT	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.56E+01	2.70E-01	2.52E-01	3.55E-01	2.91E-01	2.56E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.53E+01	1.54E-02	8.92E-04	4.69E-02	1.93E-02	2.55E+02
CHILD	GROUND	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02
CHILD	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
CHILD	VEG. ING	1.38E-03	1.60E-02	4.75E-03	4.75E-03	3.87E-03	0.00E+00
CHILD	MEAT ING	2.79E-04	3.23E-03	9.60E-04	9.60E-04	7.82E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.56E+01	2.84E-01	2.56E-01	3.03E-01	2.74E-01	2.56E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.53E+01	3.80E-02	3.82E-04	2.01E-02	9.66E-03	2.55E+02
TEENAGE	GROUND	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02
TEENAGE	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
TEENAGE	VEG. ING	2.29E-03	2.64E-02	7.86E-03	7.86E-03	6.40E-03	0.00E+00
TEENAGE	MEAT ING	4.54E-04	5.24E-03	1.56E-03	1.56E-03	1.27E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.56E+01	3.20E-01	2.60E-01	2.79E-01	2.67E-01	2.56E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.53E+01	2.24E-02	3.19E-04	1.68E-02	8.05E-03	2.55E+02
ADULT	GROUND	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02	2.37E-02
ADULT	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
ADULT	VEG. ING	3.16E-03	3.65E-02	1.09E-02	1.09E-02	8.84E-03	0.00E+00
ADULT	MEAT ING	7.93E-04	9.16E-03	2.72E-03	2.72E-03	2.22E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.56E+01	3.18E-01	2.64E-01	2.80E-01	2.69E-01	2.56E+02

1REGION: Crow Butte Three Crow Oil CODE: MILDOS-AREA (02/97) PAGE 63
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 21 NAME=KNODE X= -1.9KM, Y= 2.7KM, Z= 0.0M, DIST= 3.3KM, IRTYPE=1C

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS=AREA (02/97)
METSET: ptors DATA: TC.MIL
TIME STEP NUMBER 1, 10-Year Action Perio

PAGE 64
06/02/10

DURATION IN YRS IS... 5.0

NUMBER 21 NAME=KNODE

X= -1.9KM, Y= 2.7KM, Z= 0.0M, DIST= 3.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	4.94E+00	3.18E-02	2.98E-03	1.65E-01	6.42E-02	8.22E+01
INFANT	GROUND	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03
INFANT	CLOUD	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	5.18E+00	2.66E-01	2.37E-01	3.99E-01	2.98E-01	8.24E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	4.94E+00	2.41E-02	1.39E-03	7.34E-02	3.02E-02	8.22E+01
CHILD	GROUND	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03
CHILD	CLOUD	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01
CHILD	VEG. ING	2.16E-03	2.50E-02	7.42E-03	7.42E-03	6.05E-03	0.00E+00
CHILD	MEAT ING	4.37E-04	5.05E-03	1.50E-03	1.50E-03	1.22E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	5.17E+00	2.88E-01	2.44E-01	3.16E-01	2.72E-01	8.24E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	4.94E+00	5.94E-02	5.96E-04	3.14E-02	1.51E-02	8.22E+01
TEENAGE	GROUND	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03
TEENAGE	CLOUD	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01
TEENAGE	VEG. ING	3.58E-03	4.13E-02	1.23E-02	1.23E-02	1.00E-02	0.00E+00
TEENAGE	MEAT ING	7.09E-04	8.19E-03	2.43E-03	2.43E-03	1.98E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	5.17E+00	3.43E-01	2.49E-01	2.80E-01	2.61E-01	8.24E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	4.93E+00	3.49E-02	4.97E-04	2.62E-02	1.26E-02	8.22E+01
ADULT	GROUND	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03	8.85E-03
ADULT	CLOUD	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01
ADULT	VEG. ING	4.94E-03	5.71E-02	1.70E-02	1.70E-02	1.38E-02	0.00E+00
ADULT	MEAT ING	1.24E-03	1.43E-02	4.26E-03	4.26E-03	3.47E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	5.18E+00	3.40E-01	2.56E-01	2.82E-01	2.64E-01	8.24E+01

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97) PAGE 65
METSET: DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 22 NAME=BROTT X= -1.4 KM. Y= 1.3 KM. Z= 0.0M. DIST= 1.9KM. TRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0
 NUMBER 22 NAME=BROTT X= -1.4KM, Y= 1.3KM, Z= 0.0M, DIST= 1.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.04E+01	2.00E-02	1.88E-03	1.04E-01	4.03E-02	1.73E+02
INFANT	GROUND	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
INFANT	CLOUD	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.06E+01	1.95E-01	1.77E-01	2.79E-01	2.15E-01	1.73E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.04E+01	1.51E-02	8.75E-04	4.61E-02	1.90E-02	1.73E+02
CHILD	GROUND	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
CHILD	CLOUD	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01
CHILD	VEG. ING	1.36E-03	1.57E-02	4.66E-03	4.66E-03	3.80E-03	0.00E+00
CHILD	MEAT ING	2.74E-04	3.17E-03	9.42E-04	9.42E-04	7.67E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.06E+01	2.09E-01	1.81E-01	2.27E-01	1.98E-01	1.73E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.04E+01	3.73E-02	3.75E-04	1.98E-02	9.49E-03	1.73E+02
TEENAGE	GROUND	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
TEENAGE	CLOUD	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01
TEENAGE	VEG. ING	2.25E-03	2.60E-02	7.71E-03	7.71E-03	6.28E-03	0.00E+00
TEENAGE	MEAT ING	4.45E-04	5.15E-03	1.53E-03	1.53E-03	1.25E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.06E+01	2.43E-01	1.84E-01	2.04E-01	1.92E-01	1.73E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.04E+01	2.19E-02	3.13E-04	1.65E-02	7.91E-03	1.73E+02
ADULT	GROUND	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
ADULT	CLOUD	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01
ADULT	VEG. ING	3.10E-03	3.58E-02	1.07E-02	1.07E-02	8.58E-03	0.00E+00
ADULT	MEAT ING	7.78E-04	8.99E-03	2.67E-03	2.67E-03	2.18E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.06E+01	2.42E-01	1.88E-01	2.05E-01	1.94E-01	1.73E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 67
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS.... 5.0

NUMBER 23 NAME=SP1 X= 0.7KM, Y= 0.2KM, Z= 0.0M, DIST= 0.7KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 23 NAME=SP1 X= 0.7KM, Y= 0.2KM, Z= 0.0M, DIST= 0.7KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.37E+01	1.66E-02	1.56E-03	8.60E-02	3.34E-02	2.28E+02
INFANT	GROUND	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02
INFANT	CLOUD	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.39E+01	1.83E-01	1.68E-01	2.52E-01	1.99E-01	2.29E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.37E+01	1.26E-02	7.29E-04	3.82E-02	1.57E-02	2.28E+02
CHILD	GROUND	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02
CHILD	CLOUD	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01
CHILD	VEG. ING	1.13E-03	1.30E-02	3.87E-03	3.87E-03	3.15E-03	0.00E+00
CHILD	MEAT ING	2.27E-04	2.63E-03	7.81E-04	7.81E-04	6.36E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.39E+01	1.94E-01	1.71E-01	2.09E-01	1.86E-01	2.29E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.37E+01	3.09E-02	3.12E-04	1.64E-02	7.86E-03	2.28E+02
TEENAGE	GROUND	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02
TEENAGE	CLOUD	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01
TEENAGE	VEG. ING	1.86E-03	2.15E-02	6.39E-03	6.39E-03	5.21E-03	0.00E+00
TEENAGE	MEAT ING	3.69E-04	4.26E-03	1.27E-03	1.27E-03	1.03E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.39E+01	2.23E-01	1.74E-01	1.90E-01	1.80E-01	2.29E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.37E+01	1.82E-02	2.60E-04	1.36E-02	6.55E-03	2.28E+02
ADULT	GROUND	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02	1.81E-02
ADULT	CLOUD	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01
ADULT	VEG. ING	2.57E-03	2.97E-02	8.83E-03	8.83E-03	7.19E-03	0.00E+00
ADULT	MEAT ING	6.45E-04	7.45E-03	2.22E-03	2.22E-03	1.80E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.39E+01	2.21E-01	1.77E-01	1.91E-01	1.82E-01	2.29E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 69
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 24 NAME=SP2 X= 0.7KM, Y= 0.6KM, Z= 0.0M, DIST= 0.9KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Cl CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0.
 NUMBER 24 NAME=SP2 X= 0.7KM, Y= 0.6KM, Z= 0.0M, DIST= 0.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR.

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.20E+01	1.81E-02	1.70E-03	9.39E-02	3.65E-02	3.67E+02
INFANT	GROUND	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02
INFANT	CLOUD	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.22E+01	2.37E-01	2.21E-01	3.13E-01	2.55E-01	3.67E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.20E+01	1.37E-02	7.95E-04	4.17E-02	1.72E-02	3.67E+02
CHILD	GROUND	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02
CHILD	CLOUD	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
CHILD	VEG. ING	1.23E-03	1.42E-02	4.22E-03	4.22E-03	3.44E-03	0.00E+00
CHILD	MEAT ING	2.48E-04	2.87E-03	8.53E-04	8.53E-04	6.95E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.22E+01	2.50E-01	2.25E-01	2.66E-01	2.40E-01	3.67E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.20E+01	3.38E-02	3.41E-04	1.79E-02	8.59E-03	3.67E+02
TEENAGE	GROUND	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02
TEENAGE	CLOUD	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
TEENAGE	VEG. ING	2.03E-03	2.35E-02	6.99E-03	6.99E-03	5.69E-03	0.00E+00
TEENAGE	MEAT ING	4.03E-04	4.66E-03	1.38E-03	1.38E-03	1.13E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.22E+01	2.81E-01	2.28E-01	2.45E-01	2.34E-01	3.67E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.20E+01	1.99E-02	2.84E-04	1.49E-02	7.16E-03	3.67E+02
ADULT	GROUND	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02	2.95E-02
ADULT	CLOUD	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
ADULT	VEG. ING	2.81E-03	3.25E-02	9.65E-03	9.65E-03	7.86E-03	0.00E+00
ADULT	MEAT ING	7.05E-04	8.14E-03	2.42E-03	2.42E-03	1.97E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.22E+01	2.79E-01	2.31E-01	2.46E-01	2.36E-01	3.67E+02

1REGION: Crow Butte Three Crow O1
METSET: ptors

CODE: MILDOS-AREA (02/97)

PAGE 71

06/02/10

TIME STEP NUMBER 1: 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 25 NAME=SP3

X= 0.7KM. Y= 0.9KM. Z= 0.0M. DIST= 1.1KM. IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 72
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year-Action Perio DURATION IN YRS IS... 5.0

NUMBER 25 NAME=SP3 X= 0.7KM, Y= 0.9KM, Z= 0.0M, DIST= 1.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.05E+01	2.01E-02	1.89E-03	1.04E-01	4.06E-02	3.42E+02
INFANT	GROUND	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02
INFANT	CLOUD	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.08E+01	2.88E-01	2.70E-01	3.73E-01	3.09E-01	3.43E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.05E+01	1.53E-02	8.84E-04	4.64E-02	1.91E-02	3.42E+02
CHILD	GROUND	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02
CHILD	CLOUD	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01
CHILD	VEG. ING	1.37E-03	1.58E-02	4.70E-03	4.70E-03	3.83E-03	0.00E+00
CHILD	MEAT ING	2.76E-04	3.19E-03	9.49E-04	9.49E-04	7.73E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.08E+01	3.02E-01	2.75E-01	3.20E-01	2.92E-01	3.43E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.05E+01	3.76E-02	3.79E-04	1.99E-02	9.56E-03	3.42E+02
TEENAGE	GROUND	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02
TEENAGE	CLOUD	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01
TEENAGE	VEG. ING	2.26E-03	2.62E-02	7.77E-03	7.77E-03	6.33E-03	0.00E+00
TEENAGE	MEAT ING	4.49E-04	5.18E-03	1.54E-03	1.54E-03	1.25E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.08E+01	3.37E-01	2.78E-01	2.97E-01	2.85E-01	3.43E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.05E+01	2.21E-02	3.16E-04	1.66E-02	7.96E-03	3.42E+02
ADULT	GROUND	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02
ADULT	CLOUD	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01	2.38E-01
ADULT	VEG. ING	3.13E-03	3.61E-02	1.07E-02	1.07E-02	8.74E-03	0.00E+00
ADULT	MEAT ING	7.84E-04	9.06E-03	2.69E-03	2.69E-03	2.19E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.08E+01	3.35E-01	2.82E-01	2.98E-01	2.87E-01	3.43E+02

NUMBER 26 NAME=McDOWELL X= -2.2KM, Y= 4.4KM, Z= 0.0M, DIST= 4.9KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97) PAGE 74
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0
 NUMBER 26 NAME=McDOWELL X= -2.2KM, Y= 4.4KM, Z= 0.0M, DIST= 4.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	3.91E+00	4.97E-02	4.66E-03	2.58E-01	1.00E-01	6.49E+01
INFANT	GROUND	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03
INFANT	CLOUD	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	4.19E+00	3.31E-01	2.86E-01	5.39E-01	3.82E-01	6.52E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	3.90E+00	3.77E-02	2.18E-03	1.15E-01	4.72E-02	6.49E+01
CHILD	GROUND	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03
CHILD	CLOUD	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01
CHILD	VEG. ING	3.38E-03	3.90E-02	1.16E-02	1.16E-02	9.45E-03	0.00E+00
CHILD	MEAT ING	6.82E-04	7.89E-03	2.34E-03	2.34E-03	1.91E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	4.19E+00	3.66E-01	2.98E-01	4.10E-01	3.40E-01	6.52E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	3.90E+00	9.28E-02	9.32E-04	4.91E-02	2.36E-02	6.49E+01
TEENAGE	GROUND	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03
TEENAGE	CLOUD	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01
TEENAGE	VEG. ING	5.59E-03	6.46E-02	1.92E-02	1.92E-02	1.56E-02	0.00E+00
TEENAGE	MEAT ING	1.11E-03	1.28E-02	3.80E-03	3.80E-03	3.10E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	4.19E+00	4.52E-01	3.05E-01	3.54E-01	3.24E-01	6.52E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	3.90E+00	5.46E-02	7.77E-04	4.10E-02	1.97E-02	6.49E+01
ADULT	GROUND	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03	7.34E-03
ADULT	CLOUD	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01	2.74E-01
ADULT	VEG. ING	7.72E-03	8.92E-02	2.65E-02	2.65E-02	2.16E-02	0.00E+00
ADULT	MEAT ING	1.94E-03	2.24E-02	6.65E-03	6.65E-03	5.42E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	4.19E+00	4.48E-01	3.15E-01	3.56E-01	3.28E-01	6.52E+01

1REGION: Crow Butte Three Crow Ol CGDE: MILDOS-AREA (02/97) PAGE 75
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 27 NAME=TAGGART X= -1.9KM, Y= 4.4KM, Z= 0.0M, DIST= 4.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: Ptors DATA: TC.MIL
TIME STEP NUMBER 1, 10-Year Action Perio

PAGE 76
06/02/10
DURATION IN YRS IS. 5.0

NUMBER 27 NAME=TAGGART X= -1.9KM, Y= 4.4KM, Z= 0.0M, DIST= 4.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	4.27E+00	5.16E-02	4.84E-03	2.68E-01	1.04E-01	7.09E+01
INFANT	GROUND	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03
INFANT	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	4.57E+00	3.51E-01	3.05E-01	5.67E-01	4.04E-01	7.12E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	4.26E+00	3.91E-02	2.26E-03	1.19E-01	4.90E-02	7.09E+01
CHILD	GROUND	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03
CHILD	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
CHILD	VEG. ING	3.51E-03	4.05E-02	1.20E-02	1.20E-02	9.81E-03	0.00E+00
CHILD	MEAT ING	7.08E-04	8.18E-03	2.43E-03	2.43E-03	1.98E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	4.57E+00	3.88E-01	3.17E-01	4.33E-01	3.61E-01	7.12E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	4.26E+00	9.63E-02	9.67E-04	5.10E-02	2.45E-02	7.09E+01
TEENAGE	GROUND	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03
TEENAGE	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
TEENAGE	VEG. ING	5.80E-03	6.70E-02	1.99E-02	1.99E-02	1.62E-02	0.00E+00
TEENAGE	MEAT ING	1.15E-03	1.33E-02	3.95E-03	3.95E-03	3.22E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	4.57E+00	4.76E-01	3.25E-01	3.75E-01	3.44E-01	7.12E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	4.26E+00	5.67E-02	8.06E-04	4.25E-02	2.04E-02	7.09E+01
ADULT	GROUND	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03	7.99E-03
ADULT	CLOUD	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01	2.92E-01
ADULT	VEG. ING	8.01E-03	9.25E-02	2.75E-02	2.75E-02	2.24E-02	0.00E+00
ADULT	MEAT ING	2.01E-03	2.32E-02	6.90E-03	6.90E-03	5.62E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	4.57E+00	4.72E-01	3.35E-01	3.77E-01	3.48E-01	7.12E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA
METSET: Ptors DATA: TC MIL

PAGE 77
06/02/10

DATA: ICARIE
TIME STEP NUMBER 1: 10-Year Action Period

DURATION IN YRS IS . . . 5.0

NUMBER 28 NAME=FRANEY

X=-1.0KM Y=-4.8KM Z=0.0M DIST=4.9KM IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MREM/YR

1REGION: Crow Butte Three Crow 01 CODE: MILDOS-AREA (02/97) PAGE 78
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0
 NUMBER 28 NAME=FRANEY X= -1.0KM, Y= 4.8KM, Z= 0.0M, DIST= 4.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	5.39E+00	6.14E-02	5.76E-03	3.19E-01	1.24E-01	8.95E+01
INFANT	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
INFANT	CLOUD	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	5.76E+00	4.30E-01	3.75E-01	6.88E-01	4.93E-01	8.99E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	5.38E+00	4.65E-02	2.69E-03	1.42E-01	5.83E-02	8.95E+01
CHILD	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
CHILD	CLOUD	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01
CHILD	VEG. ING	4.17E-03	4.82E-02	1.43E-02	1.43E-02	1.17E-02	0.00E+00
CHILD	MEAT ING	8.43E-04	9.74E-03	2.90E-03	2.90E-03	2.36E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	5.76E+00	4.74E-01	3.89E-01	5.28E-01	4.41E-01	8.99E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	5.38E+00	1.15E-01	1.15E-03	6.07E-02	2.92E-02	8.95E+01
TEENAGE	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
TEENAGE	CLOUD	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01
TEENAGE	VEG. ING	6.90E-03	7.98E-02	2.37E-02	2.37E-02	1.93E-02	0.00E+00
TEENAGE	MEAT ING	1.37E-03	1.58E-02	4.70E-03	4.70E-03	3.83E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	5.76E+00	5.79E-01	3.99E-01	4.58E-01	4.21E-01	8.99E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	5.38E+00	6.74E-02	9.60E-04	5.06E-02	2.43E-02	8.95E+01
ADULT	GROUND	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
ADULT	CLOUD	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01	3.59E-01
ADULT	VEG. ING	9.53E-03	1.10E-01	3.27E-02	3.27E-02	2.67E-02	0.00E+00
ADULT	MEAT ING	2.39E-03	2.76E-02	8.21E-03	8.21E-03	6.69E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	5.76E+00	5.74E-01	4.11E-01	4.61E-01	4.27E-01	8.99E+01

1REGION: Crow Butte Three Crow Ol
METSET: ptors

CODE: MILDOS-AREA (02/97)

PAGE 79

06/02/10

TIME STEP NUMBER 1: 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 29 NAME=BUNCH

X= 1.0KM Y= 4.3KM Z= 0.0M DIST= 4.4KM IBTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL
TIME STEP NUMBER 1, 10-Year Action Perio

PAGE 80
06/02/10
DURATION IN YRS IS... 5.0

NUMBER 29 NAME=BUNCH X= 1.0KM, Y= 4.3KM, Z= 0.0M, DIST= 4.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	6.06E+00	6.13E-02	5.75E-03	3.19E-01	1.24E-01	1.01E+02
INFANT	GROUND	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
INFANT	CLOUD	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	6.46E+00	4.63E-01	4.07E-01	7.20E-01	5.25E-01	1.01E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	6.05E+00	4.65E-02	2.68E-03	1.42E-01	5.83E-02	1.01E+02
CHILD	GROUND	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
CHILD	CLOUD	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01
CHILD	VEG. ING	4.17E-03	4.82E-02	1.43E-02	1.43E-02	1.17E-02	0.00E+00
CHILD	MEAT ING	8.42E-04	9.73E-03	2.89E-03	2.89E-03	2.36E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	6.45E+00	5.06E-01	4.22E-01	5.60E-01	4.74E-01	1.01E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	6.05E+00	1.15E-01	1.15E-03	6.07E-02	2.91E-02	1.01E+02
TEENAGE	GROUND	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
TEENAGE	CLOUD	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01
TEENAGE	VEG. ING	6.90E-03	7.97E-02	2.37E-02	2.37E-02	1.93E-02	0.00E+00
TEENAGE	MEAT ING	1.37E-03	1.58E-02	4.70E-03	4.70E-03	3.83E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	6.46E+00	6.12E-01	4.31E-01	4.91E-01	4.54E-01	1.01E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	6.04E+00	6.74E-02	9.59E-04	5.06E-02	2.43E-02	1.01E+02
ADULT	GROUND	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
ADULT	CLOUD	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01	3.90E-01
ADULT	VEG. ING	9.53E-03	1.10E-01	3.27E-02	3.27E-02	2.67E-02	0.00E+00
ADULT	MEAT ING	2.39E-03	2.76E-02	8.21E-03	8.21E-03	6.69E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	6.46E+00	6.07E-01	4.44E-01	4.93E-01	4.59E-01	1.01E+02

NUMBER 30 NAME=DYER X= -2.4KM, Y= 0.6KM, Z= 0.0M, DIST= 2.5KM, INTTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MRREM/YR

1REGION: Crow Butte Three Crow Cl CODE: MILDOS-AREA (02/97) PAGE 82
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0
 NUMBER 30 NAME=DYER X= -2.4KM, Y= 0.6KM, Z= 0.0M, DIST= 2.5KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR.

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.80E+00	2.00E-02	1.88E-03	1.04E-01	4.04E-02	4.65E+01
INFANT	GROUND	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
INFANT	CLOUD	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.94E+00	1.62E-01	1.44E-01	2.46E-01	1.82E-01	4.67E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.79E+00	1.52E-02	8.77E-04	4.62E-02	1.90E-02	4.65E+01
CHILD	GROUND	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
CHILD	CLOUD	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01
CHILD	VEG. ING	1.36E-03	1.57E-02	4.68E-03	4.68E-03	3.81E-03	0.00E+00
CHILD	MEAT ING	2.75E-04	3.18E-03	9.45E-04	9.45E-04	7.70E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.94E+00	1.76E-01	1.48E-01	1.94E-01	1.65E-01	4.67E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.79E+00	3.74E-02	3.76E-04	1.98E-02	9.51E-03	4.65E+01
TEENAGE	GROUND	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
TEENAGE	CLOUD	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01
TEENAGE	VEG. ING	2.25E-03	2.60E-02	7.74E-03	7.74E-03	6.30E-03	0.00E+00
TEENAGE	MEAT ING	4.47E-04	5.16E-03	1.53E-03	1.53E-03	1.25E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.94E+00	2.11E-01	1.52E-01	1.71E-01	1.59E-01	4.67E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.79E+00	2.20E-02	3.13E-04	1.65E-02	7.93E-03	4.65E+01
ADULT	GROUND	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
ADULT	CLOUD	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01
ADULT	VEG. ING	3.11E-03	3.59E-02	1.07E-02	1.07E-02	8.70E-03	0.00E+00
ADULT	MEAT ING	7.80E-04	9.02E-03	2.68E-03	2.68E-03	2.18E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.94E+00	2.09E-01	1.56E-01	1.72E-01	1.61E-01	4.67E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 83
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 31 :NAME=NT-1 X= -4.0KM, Y= 11.3KM, Z= 0.0M, DIST= 12.0KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

REGION: Crow Butte Three Crow OI
METSET: ptors

CODE: MILDOS-AREA (02/97)

PAGE 84
06/02/10

DURATION IN YRS IS... 5.0

NUMBER 31 NAME=NT-1

X= -4.0KM, Y= 11.3KM, Z= 0.0M, DIST= 12.0KM, IBTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	5.99E+00	7.86E-02	7.46E-03	4.08E-01	1.59E-01	9.94E+01
INFANT	GROUND	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
INFANT	CLOUD	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	6.32E+00	4.09E-01	3.38E-01	7.39E-01	4.89E-01	9.98E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	5.98E+00	5.96E-02	3.48E-03	1.81E-01	7.46E-02	9.94E+01
CHILD	GROUND	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
CHILD	CLOUD	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01
CHILD	VEG. ING	5.34E-03	6.17E-02	1.83E-02	1.83E-02	1.49E-02	0.00E+00
CHILD	MEAT ING	1.08E-03	1.25E-02	3.71E-03	3.71E-03	3.02E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	6.32E+00	4.64E-01	3.56E-01	5.34E-01	4.23E-01	9.98E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	5.98E+00	1.47E-01	1.49E-03	7.77E-02	3.73E-02	9.94E+01
TEENAGE	GROUND	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
TEENAGE	CLOUD	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01
TEENAGE	VEG. ING	8.84E-03	1.02E-01	3.03E-02	3.03E-02	2.47E-02	0.00E+00
TEENAGE	MEAT ING	1.75E-03	2.02E-02	6.02E-03	6.02E-03	4.90E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	6.32E+00	6.00E-01	3.69E-01	4.45E-01	3.98E-01	9.98E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	5.98E+00	8.63E-02	1.24E-03	6.48E-02	3.11E-02	9.94E+01
ADULT	GROUND	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
ADULT	CLOUD	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01	3.20E-01
ADULT	VEG. ING	1.22E-02	1.41E-01	4.19E-02	4.19E-02	3.41E-02	0.00E+00
ADULT	MEAT ING	3.06E-03	3.54E-02	1.05E-02	1.05E-02	8.56E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	6.32E+00	5.93E-01	3.84E-01	4.48E-01	4.04E-01	9.98E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 85
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 32 NAME=NT-2 X= -4.1KM, Y= 8.9KM, Z= 0.0M, DIST= 9.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION--MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 86
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0
 NUMBER 32 NAME=NT-2 X= -4.1KM, Y= 8.9KM, Z= 0.0M, DIST= 9.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	3.69E+00	6.30E-02	5.97E-03	3.27E-01	1.27E-01	6.11E+01
INFANT	GROUND	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03
INFANT	CLOUD	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	3.90E+00	2.75E-01	2.18E-01	5.40E-01	3.40E-01	6.13E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	3.67E+00	4.78E-02	2.78E-03	1.45E-01	5.99E-02	6.11E+01
CHILD	GROUND	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03
CHILD	CLOUD	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01
CHILD	VEG. ING	4.29E-03	4.95E-02	1.47E-02	1.47E-02	1.20E-02	0.00E+00
CHILD	MEAT ING	8.66E-04	1.00E-02	2.97E-03	2.97E-03	2.42E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	3.89E+00	3.20E-01	2.33E-01	3.76E-01	2.87E-01	6.13E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	3.67E+00	1.18E-01	1.19E-03	6.23E-02	2.99E-02	6.11E+01
TEENAGE	GROUND	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03
TEENAGE	CLOUD	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01
TEENAGE	VEG. ING	7.09E-03	8.19E-02	2.44E-02	2.44E-02	1.98E-02	0.00E+00
TEENAGE	MEAT ING	1.41E-03	1.62E-02	4.83E-03	4.83E-03	3.93E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	3.90E+00	4.28E-01	2.43E-01	3.04E-01	2.66E-01	6.13E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	3.67E+00	6.93E-02	9.94E-04	5.20E-02	2.50E-02	6.11E+01
ADULT	GROUND	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03
ADULT	CLOUD	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01	2.06E-01
ADULT	VEG. ING	9.79E-03	1.13E-01	3.36E-02	3.36E-02	2.74E-02	0.00E+00
ADULT	MEAT ING	2.46E-03	2.84E-02	8.44E-03	8.44E-03	6.87E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	3.90E+00	4.23E-01	2.56E-01	3.06E-01	2.72E-01	6.13E+01

NUMBER 33 NAME=NT-3 X=-4.8KM, Y=7.9KM, Z=0.0M, DIST=9.2KM, IRTYPE=10

40CFR190-ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MRREM/YR

1REGION: Crow Butte Three Crow 01 CODE: MILDOS-AREA (02/97) PAGE 88
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0
 NUMBER 33 NAME=NT-3 X= -4.8KM, Y= 7.9KM, Z= 0.0M, DIST= 9.2KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	3.46E+00	5.70E-02	5.38E-03	2.96E-01	1.15E-01	5.73E+01
INFANT	GROUND	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03
INFANT	CLOUD	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	3.68E+00	2.82E-01	2.30E-01	5.21E-01	3.40E-01	5.75E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	3.45E+00	4.32E-02	2.51E-03	1.32E-01	5.41E-02	5.73E+01
CHILD	GROUND	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03
CHILD	CLOUD	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
CHILD	VEG. ING	3.87E-03	4.48E-02	1.33E-02	1.33E-02	1.08E-02	0.00E+00
CHILD	MEAT ING	7.83E-04	9.04E-03	2.69E-03	2.69E-03	2.19E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	3.68E+00	3.22E-01	2.43E-01	3.72E-01	2.92E-01	5.75E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	3.45E+00	1.06E-01	1.08E-03	5.64E-02	2.71E-02	5.73E+01
TEENAGE	GROUND	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03
TEENAGE	CLOUD	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
TEENAGE	VEG. ING	6.41E-03	7.41E-02	2.20E-02	2.20E-02	1.79E-02	0.00E+00
TEENAGE	MEAT ING	1.27E-03	1.47E-02	4.36E-03	4.36E-03	3.55E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	3.68E+00	4.20E-01	2.52E-01	3.08E-01	2.74E-01	5.75E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	3.45E+00	6.26E-02	8.96E-04	4.70E-02	2.26E-02	5.73E+01
ADULT	GROUND	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03	6.25E-03
ADULT	CLOUD	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
ADULT	VEG. ING	8.85E-03	1.02E-01	3.04E-02	3.04E-02	2.48E-02	0.00E+00
ADULT	MEAT ING	2.22E-03	2.57E-02	7.63E-03	7.63E-03	6.21E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	3.68E+00	4.16E-01	2.64E-01	3.10E-01	2.78E-01	5.75E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 89
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 34 NAME=NT-4 X=-5.8 KM, Y= 6.7 KM, Z= 0.0M, DIST= 8.9 KM, TTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 34 NAME=NT-4 X= -5.8KM, Y= 6.7KM, Z= 0.0M, DIST= 8.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.79E+00	4.89E-02	4.60E-03	2.54E-01	9.87E-02	4.63E+01
INFANT	GROUND	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03
INFANT	CLOUD	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	3.01E+00	2.68E-01	2.24E-01	4.73E-01	3.18E-01	4.65E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.79E+00	3.71E-02	2.15E-03	1.13E-01	4.65E-02	4.63E+01
CHILD	GROUND	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03
CHILD	CLOUD	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01
CHILD	VEG. ING	3.33E-03	3.84E-02	1.14E-02	1.14E-02	9.30E-03	0.00E+00
CHILD	MEAT ING	6.72E-04	7.76E-03	2.31E-03	2.31E-03	1.88E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	3.01E+00	3.02E-01	2.35E-01	3.46E-01	2.77E-01	4.65E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.79E+00	9.14E-02	9.21E-04	4.84E-02	2.32E-02	4.63E+01
TEENAGE	GROUND	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03
TEENAGE	CLOUD	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01
TEENAGE	VEG. ING	5.50E-03	6.36E-02	1.89E-02	1.89E-02	1.54E-02	0.00E+00
TEENAGE	MEAT ING	1.09E-03	1.26E-02	3.74E-03	3.74E-03	3.05E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	3.01E+00	3.87E-01	2.43E-01	2.90E-01	2.61E-01	4.65E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.79E+00	5.37E-02	7.67E-04	4.03E-02	1.94E-02	4.63E+01
ADULT	GROUND	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03
ADULT	CLOUD	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01
ADULT	VEG. ING	7.60E-03	8.78E-02	2.61E-02	2.61E-02	2.13E-02	0.00E+00
ADULT	MEAT ING	1.91E-03	2.20E-02	6.54E-03	6.54E-03	5.33E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	3.01E+00	3.83E-01	2.53E-01	2.92E-01	2.65E-01	4.65E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 91
 METSET: ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1. 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 35 NAME=NT-5 X=-4.6KM, Y= 6.8KM, Z= 0.0M, DIST= 8.2KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 92
 METSET: Ptors DATA: TC.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0
 NUMBER 35 NAME=NT-5 X= -4.6KM, Y= 6.8KM, Z= 0.0M, DIST= 8.2KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.84E+00	5.45E-02	5.13E-03	2.83E-01	1.10E-01	4.70E+01
INFANT	GROUND	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03
INFANT	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	3.07E+00	2.86E-01	2.36E-01	5.14E-01	3.41E-01	4.73E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.83E+00	4.13E-02	2.39E-03	1.26E-01	5.18E-02	4.70E+01
CHILD	GROUND	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03
CHILD	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
CHILD	VEG. ING	3.70E-03	4.28E-02	1.27E-02	1.27E-02	1.04E-02	0.00E+00
CHILD	MEAT ING	7.48E-04	8.65E-03	2.57E-03	2.57E-03	2.09E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	3.07E+00	3.24E-01	2.49E-01	3.72E-01	2.95E-01	4.73E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.83E+00	1.02E-01	1.03E-03	5.39E-02	2.59E-02	4.70E+01
TEENAGE	GROUND	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03
TEENAGE	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
TEENAGE	VEG. ING	6.13E-03	7.08E-02	2.10E-02	2.10E-02	1.71E-02	0.00E+00
TEENAGE	MEAT ING	1.21E-03	1.40E-02	4.17E-03	4.17E-03	3.40E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	3.07E+00	4.18E-01	2.57E-01	3.10E-01	2.78E-01	4.73E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.83E+00	5.99E-02	8.55E-04	4.49E-02	2.16E-02	4.70E+01
ADULT	GROUND	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03	5.33E-03
ADULT	CLOUD	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01	2.26E-01
ADULT	VEG. ING	8.46E-03	9.78E-02	2.91E-02	2.91E-02	2.37E-02	0.00E+00
ADULT	MEAT ING	2.12E-03	2.45E-02	7.29E-03	7.29E-03	5.94E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	3.07E+00	4.13E-01	2.68E-01	3.12E-01	2.82E-01	4.73E+01

NUMBER 36 NAME=NT-6 X= -7.2KM, Y= 11.6KM, Z= 0.0M, DIST= 13.7KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL

PAGE 94
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 36 NAME=NT-6

X= -7.2KM, Y= 11.6KM, Z= 0.0M, DIST= 13.7KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.95E+00	6.24E-02	5.95E-03	3.24E-01	1.26E-01	3.21E+01
INFANT	GROUND	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03
INFANT	CLOUD	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.12E+00	2.33E-01	1.76E-01	4.94E-01	2.96E-01	3.23E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.94E+00	4.73E-02	2.77E-03	1.44E-01	5.93E-02	3.21E+01
CHILD	GROUND	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03
CHILD	CLOUD	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01
CHILD	VEG. ING	4.25E-03	4.91E-02	1.46E-02	1.46E-02	1.19E-02	0.00E+00
CHILD	MEAT ING	8.58E-04	9.91E-03	2.95E-03	2.95E-03	2.40E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.11E+00	2.77E-01	1.91E-01	3.32E-01	2.44E-01	3.23E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.94E+00	1.17E-01	1.19E-03	6.18E-02	2.97E-02	3.21E+01
TEENAGE	GROUND	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03
TEENAGE	CLOUD	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01
TEENAGE	VEG. ING	7.02E-03	8.12E-02	2.41E-02	2.41E-02	1.96E-02	0.00E+00
TEENAGE	MEAT ING	1.39E-03	1.61E-02	4.78E-03	4.78E-03	3.89E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.12E+00	3.84E-01	2.00E-01	2.61E-01	2.23E-01	3.23E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.94E+00	6.86E-02	9.91E-04	5.15E-02	2.47E-02	3.21E+01
ADULT	GROUND	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03	3.69E-03
ADULT	CLOUD	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01
ADULT	VEG. ING	9.70E-03	1.12E-01	3.33E-02	3.33E-02	2.71E-02	0.00E+00
ADULT	MEAT ING	2.43E-03	2.81E-02	8.36E-03	8.36E-03	6.81E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.12E+00	3.79E-01	2.13E-01	2.63E-01	2.29E-01	3.23E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 95
METSET: ptors DATA: TC.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 37 NAME=NT-7 X= -8.3KM, Y= 9.9KM, Z= 0.0M, DIST= 12.9KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL

PAGE 96
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 37 NAME=NT-7

X= -8.3KM, Y= 9.9KM, Z= 0.0M, DIST= 12.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.53E+00	5.10E-02	4.84E-03	2.65E-01	1.03E-01	2.52E+01
INFANT	GROUND	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03
INFANT	CLOUD	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.67E+00	1.95E-01	1.49E-01	4.08E-01	2.47E-01	2.53E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.52E+00	3.87E-02	2.26E-03	1.18E-01	4.84E-02	2.52E+01
CHILD	GROUND	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03
CHILD	CLOUD	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
CHILD	VEG. ING	3.47E-03	4.00E-02	1.19E-02	1.19E-02	9.70E-03	0.00E+00
CHILD	MEAT ING	7.00E-04	8.09E-03	2.40E-03	2.40E-03	1.96E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.67E+00	2.31E-01	1.60E-01	2.76E-01	2.04E-01	2.53E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.52E+00	9.52E-02	9.68E-04	5.04E-02	2.42E-02	2.52E+01
TEENAGE	GROUND	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03
TEENAGE	CLOUD	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
TEENAGE	VEG. ING	5.73E-03	6.62E-02	1.97E-02	1.97E-02	1.60E-02	0.00E+00
TEENAGE	MEAT ING	1.14E-03	1.31E-02	3.90E-03	3.90E-03	3.18E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.67E+00	3.18E-01	1.68E-01	2.18E-01	1.87E-01	2.53E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.52E+00	5.60E-02	8.06E-04	4.20E-02	2.02E-02	2.52E+01
ADULT	GROUND	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03
ADULT	CLOUD	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
ADULT	VEG. ING	7.92E-03	9.15E-02	2.72E-02	2.72E-02	2.21E-02	0.00E+00
ADULT	MEAT ING	1.99E-03	2.29E-02	6.82E-03	6.82E-03	5.56E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.67E+00	3.14E-01	1.79E-01	2.20E-01	1.92E-01	2.53E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: ptors DATA: TC.MIL

PAGE 97
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 38 NAME=NT-8

X=-0.4KM Y= -2 SKM Z= -0.0M DIST= 3.8KM IRVTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION: MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
 METSET: ptors DATA: TC.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 38 NAME=NT-8 X= -0.4KM, Y= 2.8KM, Z= 0.0M, DIST= 2.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.16E+01	3.95E-02	3.70E-03	2.05E-01	7.98E-02	1.93E+02
INFANT	GROUND	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02
INFANT	CLOUD	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.20E+01	4.59E-01	4.23E-01	6.24E-01	4.99E-01	1.94E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.16E+01	3.00E-02	1.73E-03	9.13E-02	3.76E-02	1.93E+02
CHILD	GROUND	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02
CHILD	CLOUD	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01
CHILD	VEG. ING	2.69E-03	3.11E-02	9.23E-03	9.23E-03	7.52E-03	0.00E+00
CHILD	MEAT ING	5.43E-04	6.28E-03	1.87E-03	1.87E-03	1.52E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.20E+01	4.86E-01	4.32E-01	5.21E-01	4.66E-01	1.94E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.16E+01	7.39E-02	7.41E-04	3.91E-02	1.88E-02	1.93E+02
TEENAGE	GROUND	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02
TEENAGE	CLOUD	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01
TEENAGE	VEG. ING	4.45E-03	5.14E-02	1.53E-02	1.53E-02	1.24E-02	0.00E+00
TEENAGE	MEAT ING	8.82E-04	1.02E-02	3.03E-03	3.03E-03	2.47E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.20E+01	5.54E-01	4.38E-01	4.76E-01	4.53E-01	1.94E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.16E+01	4.35E-02	6.17E-04	3.26E-02	1.57E-02	1.93E+02
ADULT	GROUND	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02
ADULT	CLOUD	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01	3.99E-01
ADULT	VEG. ING	6.14E-03	7.10E-02	2.11E-02	2.11E-02	1.72E-02	0.00E+00
ADULT	MEAT ING	1.54E-03	1.78E-02	5.29E-03	5.29E-03	4.31E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.20E+01	5.51E-01	4.46E-01	4.78E-01	4.56E-01	1.94E+02

Program execution time = 4.89 seconds

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



Appendix M-7 MILDOS-AREA Computer Run No. 2 for 8 Receptors

CROW BUTTE RESOURCES, INC.

Environmental Report
Three Crow Expansion Area



This page intentionally left blank

DIRECTION: Crow Butte Three Crow Ol. CODE: MILDOS-AREA (02/97)
METSET:
0.

DATA: TCI.ML

PAGE 1
06/02/10

TABLE OF CONTENTS

METEOROLOGICAL DATA	2
INDIVIDUAL RECEPTORS & MISCELLANEOUS INPUT DATA	3
POPULATION DISTRIBUTION	4
SOURCE PARAMETERS	5
TIME STEP 1, 10-Year Action Period	
CONCENTRATION DATA FOR SPATIAL INTERVALS	6
ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR	
INHALATION PATHWAY	10
GROUND PATHWAY	14
CLOUD PATHWAY	15
VEGETATION INGESTION PATHWAY	16
MEAT INGESTION PATHWAY	18
MILK INGESTION PATHWAY	20
POPULATION DOSE SUMMARY	22
INDIVIDUAL RECEPTOR ALC CHECK AND/OR ANNUAL DOSE COMMITMENTS	23

This page intentionally left blank

1REGION: Crow Butte Three Crow, Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TCI-MIL

PAGE 2
06/02/10

JOINT FREQUENCY IN PERCENT, DIRECTION INDICATES WHERE WIND IS FROM FREQWS=0.10263,0.28970,0.30245,0.21999,0.07389,0.01933
 MPH N NNE NE ENE E ESE SE SSE S SSW SW NSW W WNW NW NNW TOTALS

MPH N NNE NE ENE ESE SE SSE S SSW SW WSW W WNW NW NNW TOTALS

STABILITY CLASS 1																		
1.5	0.0560	0.1420	0.0930	0.0370	0.0680	0.0190	0.0560	0.0250	0.0560	0.0310	0.0430	0.0370	0.0370	0.0430	0.0370	0.0870	0.8670	
5.5	0.4880	0.4950	0.4820	0.2470	0.1110	0.0490	0.0990	0.1420	0.2100	0.1110	0.2100	0.1170	0.0990	0.0800	0.1300	0.2230	3.2930	
10.0	0.1480	0.1670	0.0740	0.0310	0.0430	0.0120	0.0930	0.0930	0.0870	0.1170	0.0870	0.0870	0.0990	0.0560	0.0870	0.1050	1.3860	
15.5	0.0060	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060	0.0000	0.0120	0.0000	0.0000	0.0060	0.0250	0.0060	0.0250	0.0920	
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
ALL	0.6980	0.8100	0.5490	0.3150	0.2220	0.0800	0.2480	0.2660	0.3530	0.2710	0.3400	0.2410	0.2410	0.2040	0.2500	0.4400	5.6380	

STABILITY CLASS 2																	
1.5	0.0740	0.0990	0.0680	0.0620	0.0120	0.0430	0.0060	0.0490	0.0800	0.0740	0.0680	0.0430	0.0310	0.0490	0.0190	0.0310	0.8080
5.5	0.1980	0.2600	0.3890	0.1300	0.0620	0.0430	0.0930	0.0870	0.0740	0.1480	0.2350	0.1480	0.0990	0.0800	0.0800	0.1110	2.2370
10.0	0.4080	0.2780	0.4020	0.2100	0.0560	0.0800	0.1670	0.1790	0.2970	0.1670	0.1850	0.1920	0.1730	0.1550	0.2970	0.3650	3.6110
15.5	0.0490	0.0250	0.0370	0.0190	0.0060	0.0000	0.0190	0.0370	0.0580	0.0560	0.0430	0.0620	0.0310	0.0250	0.0800	0.1240	0.6810
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060	0.0060	0.0000	0.0060	0.0060	0.0240
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ALL	0.7290	0.6620	0.8960	0.4210	0.1360	0.1660	0.2850	0.3520	0.5190	0.4450	0.5310	0.4510	0.3400	0.3090	0.4820	0.6370	7.3610

STABILITY CLASS 3																	
1.5	0.0800	0.0680	0.0990	0.0490	0.0000	0.0250	0.0190	0.0490	0.1050	0.1240	0.1110	0.1050	0.0120	0.0190	0.0430	0.0430	0.9510
5.5	0.1670	0.2840	0.2470	0.1110	0.0620	0.0370	0.0740	0.0800	0.1790	0.3280	0.3650	0.3280	0.0990	0.0560	0.0800	0.1550	2.6520
10.0	0.2910	0.3150	0.6180	0.3210	0.8000	0.0990	0.1980	0.2410	0.5750	0.4270	0.5070	0.3890	0.2160	0.1110	0.4020	0.3710	5.8810
15.5	0.0800	0.0930	0.1300	0.1050	0.0310	0.0250	0.0800	0.1610	0.0800	0.0930	0.1300	0.1050	0.0310	0.0250	0.0800	0.1610	1.4100
21.5	0.0800	0.0930	0.1300	0.1050	0.0000	0.0250	0.0800	0.1610	0.0000	0.0000	0.0120	0.0060	0.0120	0.0060	0.0060	0.0000	0.7160
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
ALL	0.6980	0.8530	1.2240	0.6910	0.8930	0.2110	0.4510	0.6920	0.9390	0.9720	1.1250	0.9390	0.3700	0.2170	0.6110	0.7300	11-6160

STABILITY CLASS 4																		
1.5	0.0870	0.0800	0.0680	0.0190	0.0120	0.0060	0.0310	0.0680	0.1730	0.1110	0.0870	0.0870	0.0490	0.0250	0.0250	0.0190	0.9470	
5.5	0.2660	0.5750	0.7850	0.2410	0.0310	0.1300	0.2160	0.9150	0.8590	0.7050	1.0880	0.3150	0.1050	0.0870	0.1610	0.2530	6.7320	
10.0	0.5870	1.2050	1.3110	0.4080	0.1420	0.1790	0.3650	0.7730	1.8400	1.9660	2.9860	1.1750	0.3280	0.4700	0.8220	0.9270	15.4840	
15.5	0.4270	1.4900	1.3970	0.2600	0.1110	0.0680	0.2660	1.3400	4.0000	1.8540	1.9530	1.4090	0.5320	0.7170	2.6400	1.2100	19.6740	
21.5	0.1050	0.4570	0.2350	0.0310	0.0190	0.0000	0.0930	0.6240	1.8400	0.3890	0.1480	0.2780	0.2410	0.3400	1.3790	0.4640	6.6430	
28.0	0.0120	0.0990	0.0430	0.0000	0.0000	0.0060	0.1730	0.2970	0.0620	0.0120	0.0800	0.0990	0.1420	0.7970	0.1050	1.9270		
ALL	1.4840	3.9060	3.8390	0.9590	0.3150	0.3830	0.9770	3.8930	9.0090	5.0870	6.2740	3.3440	1.3540	1.7810	5.8240	2.9780	51.4070	

STABILITY CLASS 5																	
1.5	0.1300	0.1480	0.1480	0.0680	0.0250	0.0430	0.0740	0.2600	0.3400	0.3210	0.2720	0.1610	0.0990	0.0560	0.0680	0.0930	2.3060
5.5	0.4450	0.4270	0.5070	0.1920	0.1110	0.0990	0.2780	1.1600	1.6900	1.6070	1.2490	0.4390	0.1480	0.1480	0.1790	0.2040	8.8830
10.0	0.0990	0.2780	0.2910	0.1110	0.0310	0.0680	0.1300	0.1610	0.6610	0.4270	0.8650	0.3770	0.0560	0.1240	0.1300	0.0740	3.8830
15.5	0.0060	0.0000	0.0120	0.0000	0.0000	0.0000	0.0190	0.0120	0.0250	0.0060	0.0190	0.0060	0.0060	0.0000	0.0310	0.0000	0.1420
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ALL	0.6800	0.8530	0.9580	0.3710	0.1670	0.2100	0.5010	1.5930	2.7160	2.3610	2.4110	0.9830	0.3090	0.3280	0.4080	0.3710	15.2200

STABILITY CLASS 6																	
1.5	0.3210	0.1610	0.0930	0.1360	0.1240	0.1730	0.1670	0.3650	0.7290	0.7050	0.6310	0.2660	0.1730	0.0800	0.1300	0.1300	4.3840
5.5	0.1610	0.1300	0.1360	0.0740	0.0430	0.0990	0.1730	0.4640	1.1800	1.2800	0.7790	0.2530	0.1420	0.0930	0.1170	0.0490	5.1730
10.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ALL	0.4820	0.2910	0.2290	0.2100	0.1670	0.2720	0.3400	0.8290	1.9090	1.9850	1.4100	0.5190	0.3150	0.1730	0.2470	0.1790	9.5570

ALL 4.7710 7.3750 7.7950 2.9670 1.9000 1.3220 2.8020 7.625015.445011.121012.0910 6.4770 2.9290 3.0120 7.8320 5.3350 100.7990

REGION: Crow Butte Three Crow OI

CODE: MILDOS-AREA (02/97)

PAGE: 3

METSET:

DATA: TC1.MIL

06/02/10

INDIVIDUAL RECEPTOR LOCATION DATA,						8 LOCATIONS INPUT THIS RUN							
I	LOCATION NAMES	X(KM)	Y(KM)	Z(M)	DIST(KM)	TYPE	I	LOCATION NAMES	X(KM)	Y(KM)	Z(M)	DIST(KM)	TYPE
1	Three Crow 1	-8.20	-1.18	0.00	8.28	10	5	Three Crow 5	-11.70	-3.96	0.00	12.35	10
2	Three Crow 2	-11.30	-0.57	0.00	11.31	10	6	Three Crow 6	-9.52	2.72	0.00	9.90	10
3	Three Crow 3	-6.49	-1.95	0.00	6.78	10	7	Three Crow 7	-3.31	1.03	0.00	3.47	10
4	Three Crow 4	-5.20	1.10	0.00	5.32	10	8	Three Crow 8	-8.26	-4.95	0.00	9.63	10

MISCELLANEOUS INPUTABLE PARAMETER VALUES

DMM	DMA	TSTART	FFORD	FHAYI	FFORP	FHAYP	FPR(1)	FPR(2)	FPR(3)	ACTRAT
100.0	100.0	2006.00	0.90	0.10	0.90	0.10	87000.00	4000.00	0.00	2.50

IMPACT EQUALS 0, 0, 0, 0, 0, 0, 0, 0,

JC EQUALS 1, 0, 1, 1, 0, 0, 1, 0, 0, 0

TIME STEP DATA... STEP NAMES LENGTH, YRS IFTODO
1 10-Year Action Period 5.00 1

XRHO EQUALS 1.5, 2.5, 3.5, 4.5, 7.5, 15.0, 25.0, 35.0, 45.0, 55.0, 65.0, 75.0,

HDF EQUALS 50.0

REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILLOS-AREA (02/97)
DATA: TC1.MIL

PAGE 4
06/02/10

POPULATION DISTRIBUTION

KILOMETERS	N 0.0	NNE 22.5	NE 45.0	ENE 67.5	E 90.0	ESE 112.5	SE 135.0	SSE 157.5	S 180.0	SSW 202.5	SW 225.0	WSW 237.5	W 270.0	WNW 292.5	NW 315.0	NNW 337.5
1.0- 2.0	0	0	0	0	0	2	0	0	0	1	2	0	0	0	2	2
2.0- 3.0	0	0	0	0	0	3	0	0	0	0	4	0	6	0	0	2
3.0- 4.0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	2	0
4.0- 5.0	0	1	1	0	0	9	9	4	6	0	0	0	0	2	0	5
5.0-10.0	15	2	6	10	0	5	13	1	10	5	4	13	6	84	1308	21
10.0-20.0	39	111	39	39	39	39	39	39	39	39	28	24	39	23	28	21
20.0-30.0	65	65	65	65	65	65	65	94	110	68	35	35	35	35	35	54
30.0-40.0	95	92	91	5982	91	91	124	91	192	64	49	49	49	49	49	61
40.0-50.0	145	142	124	157	140	125	238	1367	243	67	61	61	422	61	63	146
50.0-60.0	178	185	290	232	1047	249	301	301	283	76	76	84	300	79	119	178
60.0-70.0	210	400	466	647	302	302	338	354	299	89	89	242	199	106	191	209
70.0-80.0	242	365	572	3077	1563	348	364	10290	1186	1077	157	354	239	127	187	381
1.0-80.0	989	1363	1676	10209	3247	1229	1490	12543	2362	1476	505	864	1295	566	1984	1080

TOTAL I-80 KM POPULATION IS 42878 PERSONS

1REGION: Crow Butte Three Crow Ol. CODE: MILDOS-AREA (02/97)
METSET: DATA: TC1.MIL

PAGE 5
06/02/10

NUMBER OF SOURCES= 9

NO.	KM X	KM Y	M Z	KM2 AREA	U-238	Th-230	CI/YEAR		PSIZE	M/SEC		
							Ra-226	Pb-210	Rn-222	ID	SET	SOURCE NAME
1	0.00	0.00	15.90	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.30E+03	1001	1	1.16E+01 Main Plant Stack
2	-5.30	9.60	6.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E+02	1002	1	1.00E+01 NT satellite stack
3	-0.30	0.16	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E+02	1003	1	0.00E+00 MU 2,3,4
4	0.00	0.74	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E+02	1004	1	0.00E+00 MU 5
5	-1.20	1.80	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E+02	1005	1	0.00E+00 MU 6&8
6	0.00	-0.74	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E+02	1006	1	0.00E+00 MU 7&9
7	-5.30	9.60	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E+03	1007	1	0.00E+00 North Trend Well F1
8	-7.98	-1.38	0.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E+03	1008	1	0.00E+00 TC well field
9	-9.60	-0.73	10.00	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E+02	1009	1	1.00E+01 TC satellite stack

	INPUT	TAILS	ACTIVITIES, PCI/G	
SET	URANIUM	THORIUM	RADIUM	LEAD
1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00

AMAD AND FRACTIONAL DISTRIBUTION				
SET	1.5	3.0	7.7	54.0
1	0.000	1.000	0.000	0.00
2	1.000	0.000	0.000	0.00
3	0.000	0.000	0.300	0.70

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 6
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE N DIRECTION, THETA EQUALS 0.0 DEGREES

TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	WL
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.974E+02	2.466E+02	6.960E+01	2.617E+01	4.653E-05	7.045E-04
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.684E+02	1.565E+02	6.711E+01	3.466E+01	7.202E-05	6.307E-04
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.178E+02	1.140E+02	6.098E+01	3.739E+01	1.001E-04	5.660E-04
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.683E+01	8.549E+01	5.280E+01	3.605E+01	1.240E-04	4.902E-04
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.029E+01	5.012E+01	3.736E+01	2.894E+01	1.661E-04	3.490E-04
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.213E+01	3.213E+01	2.714E+01	2.285E+01	2.245E-04	2.559E-04
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.641E+01	1.642E+01	1.541E+01	1.415E+01	2.378E-04	1.478E-04
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.088E+01	1.089E+01	1.055E+01	1.004E+01	2.374E-04	1.022E-04
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.962E+00	7.966E+00	7.843E+00	7.611E+00	2.325E-04	7.636E-05
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.199E+00	6.202E+00	6.159E+00	6.050E+00	2.268E-04	6.018E-05
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.030E+00	5.033E+00	5.022E+00	4.971E+00	2.211E-04	4.919E-05
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.205E+00	4.207E+00	4.209E+00	4.187E+00	2.157E-04	4.129E-05

GROUND SURFACE CONCENTRATIONS, PCI/M2

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.953E+02	1.953E+02	1.953E+02	1.973E+01
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.239E+02	1.239E+02	1.239E+02	3.053E+01
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.027E+01	9.027E+01	9.027E+01	4.246E+01
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.771E+01	6.771E+01	6.771E+01	5.255E+01
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.970E+01	3.970E+01	3.970E+01	7.042E+01
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.545E+01	2.545E+01	2.545E+01	9.519E+01
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.301E+01	1.301E+01	1.301E+01	1.008E+02
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.625E+00	8.625E+00	8.625E+00	1.006E+02
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.310E+00	6.310E+00	6.310E+00	9.858E+01
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.913E+00	4.913E+00	4.913E+00	9.616E+01
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.986E+00	3.986E+00	3.986E+00	9.373E+01
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.332E+00	3.332E+00	3.332E+00	9.145E+01

TOTAL DEPOSITION RATES, PCI/M2-SEC

XRHO, KM	U-238	Th-230	Ra-226	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	1.396E-07
2.5	0.000E+00	0.000E+00	0.000E+00	2.161E-07
3.5	0.000E+00	0.000E+00	0.000E+00	3.004E-07
4.5	0.000E+00	0.000E+00	0.000E+00	3.719E-07
7.5	0.000E+00	0.000E+00	0.000E+00	4.983E-07
15.0	0.000E+00	0.000E+00	0.000E+00	6.735E-07
25.0	0.000E+00	0.000E+00	0.000E+00	7.133E-07
35.0	0.000E+00	0.000E+00	0.000E+00	7.121E-07
45.0	0.000E+00	0.000E+00	0.000E+00	6.975E-07
55.0	0.000E+00	0.000E+00	0.000E+00	6.804E-07
65.0	0.000E+00	0.000E+00	0.000E+00	6.632E-07
75.0	0.000E+00	0.000E+00	0.000E+00	6.471E-07

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 7
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE E DIRECTION, THETA EQUALS 90.0 DEGREES

TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	WL
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.854E+01	5.152E+01	2.028E+01	1.007E+01	3.203E-05	1.934E-04
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.308E+01	3.155E+01	1.697E+01	1.054E+01	3.705E-05	1.578E-04
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.317E+01	2.269E+01	1.436E+01	1.010E+01	4.191E-05	1.339E-04
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.808E+01	1.789E+01	1.243E+01	9.363E+00	4.642E-05	1.164E-04
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.084E+01	1.082E+01	8.581E+00	7.032E+00	5.372E-05	8.088E-05
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.100E+00	5.103E+00	4.597E+00	4.081E+00	5.725E-05	4.379E-05
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.933E+00	2.935E+00	2.807E+00	2.634E+00	5.762E-05	2.708E-05
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.034E+00	2.035E+00	1.993E+00	1.924E+00	5.704E-05	1.938E-05
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.536E+00	1.537E+00	1.523E+00	1.492E+00	5.597E-05	1.487E-05
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.222E+00	1.223E+00	1.219E+00	1.205E+00	5.478E-05	1.193E-05
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.006E+00	1.007E+00	1.001E+00	5.356E-05	9.878E-06	
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.519E-01	8.523E-01	8.540E-01	8.519E-01	5.247E-05	8.385E-06

GROUND SURFACE CONCENTRATIONS, PCI/M2

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.081E+01	4.081E+01	4.081E+01	1.358E+01
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.499E+01	2.499E+01	2.499E+01	1.571E+01
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.797E+01	1.797E+01	1.797E+01	1.777E+01
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.417E+01	1.417E+01	1.417E+01	1.968E+01
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.572E+00	8.572E+00	8.572E+00	2.278E+01
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.042E+00	4.042E+00	4.042E+00	2.427E+01
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.324E+00	2.324E+00	2.324E+00	2.443E+01
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.612E+00	1.612E+00	1.612E+00	2.418E+01
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.217E+00	1.217E+00	1.217E+00	2.373E+01
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.683E-01	9.683E-01	9.683E-01	2.323E+01
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.976E-01	7.976E-01	7.976E-01	2.271E+01
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.751E-01	6.751E-01	6.751E-01	2.224E+01

TOTAL DEPOSITION RATES, PCI/M2-SEC

XRHO, KM	U-238	Th-230	Ra-226	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	9.610E-08
2.5	0.000E+00	0.000E+00	0.000E+00	1.111E-07
3.5	0.000E+00	0.000E+00	0.000E+00	1.257E-07
4.5	0.000E+00	0.000E+00	0.000E+00	1.393E-07
7.5	0.000E+00	0.000E+00	0.000E+00	1.612E-07
15.0	0.000E+00	0.000E+00	0.000E+00	1.718E-07
25.0	0.000E+00	0.000E+00	0.000E+00	1.729E-07
35.0	0.000E+00	0.000E+00	0.000E+00	1.711E-07
45.0	0.000E+00	0.000E+00	0.000E+00	1.679E-07
55.0	0.000E+00	0.000E+00	0.000E+00	1.643E-07
65.0	0.000E+00	0.000E+00	0.000E+00	1.607E-07
75.0	0.000E+00	0.000E+00	0.000E+00	1.574E-07

IREGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 8
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE S DIRECTION, THETA EQUALS 180.0 DEGREES

XRHO, KM	U-238	Th-230	Ra-226	TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL					
				Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.143E+02	1.002E+02	3.281E+01	1.335E+01	3.118E-05
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.596E+01	5.385E+01	2.788E+01	1.617E+01	4.107E-05
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.833E+01	3.777E+01	2.366E+01	1.609E+01	5.061E-05
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.924E+01	2.905E+01	2.017E+01	1.490E+01	5.811E-05
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.854E+01	1.852E+01	1.468E+01	1.190E+01	7.861E-05
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.420E+00	9.424E+00	8.506E+00	7.527E+00	9.626E-05
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.452E+00	5.455E+00	5.263E+00	4.977E+00	1.026E-04
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.841E+00	3.843E+00	3.792E+00	3.693E+00	1.062E-04
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.913E+00	2.915E+00	2.903E+00	2.868E+00	1.066E-04
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.320E+00	2.321E+00	2.322E+00	2.310E+00	1.058E-04
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.911E+00	1.912E+00	1.917E+00	1.914E+00	1.044E-04
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.614E+00	1.615E+00	1.621E+00	1.622E+00	1.029E-04
									1.593E-05

XRHO, KM	U-238	Th-230	Ra-226	GROUND SURFACE CONCENTRATIONS, PCI/M2				
				Pb-210	Rn-222	Po-218	Pb-214	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.934E+01	7.934E+01	7.934E+01
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.265E+01	4.265E+01	4.265E+01
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.991E+01	2.991E+01	2.991E+01
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.301E+01	2.301E+01	2.301E+01
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.467E+01	1.467E+01	1.467E+01
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.464E+00	7.464E+00	7.464E+00
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.321E+00	4.321E+00	4.321E+00
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.044E+00	3.044E+00	3.044E+00
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.309E+00	2.309E+00	2.309E+00
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.838E+00	1.838E+00	1.838E+00
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.514E+00	1.514E+00	1.514E+00
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.279E+00	1.279E+00	1.279E+00

XRHO, KM	TOTAL DEPOSITION RATES, PCI/M2-SEC			
	U-238	Th-230	Ra-226	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	9.353E-08
2.5	0.000E+00	0.000E+00	0.000E+00	1.232E-07
3.5	0.000E+00	0.000E+00	0.000E+00	1.518E-07
4.5	0.000E+00	0.000E+00	0.000E+00	1.743E-07
7.5	0.000E+00	0.000E+00	0.000E+00	2.358E-07
15.0	0.000E+00	0.000E+00	0.000E+00	2.888E-07
25.0	0.000E+00	0.000E+00	0.000E+00	3.078E-07
35.0	0.000E+00	0.000E+00	0.000E+00	3.185E-07
45.0	0.000E+00	0.000E+00	0.000E+00	3.197E-07
55.0	0.000E+00	0.000E+00	0.000E+00	3.173E-07
65.0	0.000E+00	0.000E+00	0.000E+00	3.133E-07
75.0	0.000E+00	0.000E+00	0.000E+00	3.086E-07

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 9
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE W DIRECTION, THETA EQUALS 270.0 DEGREES

TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	WL
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.828E+01	4.381E+01	1.877E+01	9.876E+00	3.044E-05	1.771E-04
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.359E+01	3.224E+01	1.736E+01	1.098E+01	3.583E-05	1.622E-04
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.770E+01	2.723E+01	1.690E+01	1.181E+01	4.119E-05	1.578E-04
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.738E+01	2.703E+01	1.760E+01	1.266E+01	4.555E-05	1.643E-04
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.358E+02	1.241E+02	4.891E+01	2.197E+01	4.844E-05	4.577E-04
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.385E+00	7.385E+00	6.239E+00	5.216E+00	4.490E-05	5.869E-05
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.926E+00	2.927E+00	2.765E+00	2.539E+00	4.178E-05	2.650E-05
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.784E+00	1.785E+00	1.750E+00	1.682E+00	3.985E-05	1.698E-05
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.276E+00	1.277E+00	1.269E+00	1.247E+00	3.835E-05	1.240E-05
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.815E-01	9.821E-01	9.820E-01	9.752E-01	3.706E-05	9.628E-06
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.902E-01	7.907E-01	7.927E-01	7.914E-01	3.593E-05	7.785E-06
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.568E-01	6.571E-01	6.596E-01	6.602E-01	3.491E-05	6.483E-06

GROUND SURFACE CONCENTRATIONS, PCI/M2

XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.470E+01	3.470E+01	3.470E+01	1.291E+01
2.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.553E+01	2.553E+01	2.553E+01	1.519E+01
3.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.156E+01	2.156E+01	2.156E+01	1.747E+01
4.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.141E+01	2.141E+01	2.141E+01	1.931E+01
7.5	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.828E+01	9.828E+01	9.828E+01	2.054E+01
15.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.849E+00	5.849E+00	5.849E+00	1.904E+01
25.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.319E+00	2.319E+00	2.319E+00	1.771E+01
35.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.414E+00	1.414E+00	1.414E+00	1.690E+01
45.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.012E+00	1.012E+00	1.012E+00	1.626E+01
55.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.779E-01	7.779E-01	7.779E-01	1.571E+01
65.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.262E-01	6.262E-01	6.262E-01	1.523E+01
75.0	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.205E-01	5.205E-01	5.205E-01	1.480E+01

TOTAL DEPOSITION RATES, PCI/M2-SEC

XRHO, KM	U-238	Th-230	Ra-226	Pb-210
1.5	0.000E+00	0.000E+00	0.000E+00	9.133E-08
2.5	0.000E+00	0.000E+00	0.000E+00	1.075E-07
3.5	0.000E+00	0.000E+00	0.000E+00	1.236E-07
4.5	0.000E+00	0.000E+00	0.000E+00	1.366E-07
7.5	0.000E+00	0.000E+00	0.000E+00	1.453E-07
15.0	0.000E+00	0.000E+00	0.000E+00	1.347E-07
25.0	0.000E+00	0.000E+00	0.000E+00	1.253E-07
35.0	0.000E+00	0.000E+00	0.000E+00	1.196E-07
45.0	0.000E+00	0.000E+00	0.000E+00	1.151E-07
55.0	0.000E+00	0.000E+00	0.000E+00	1.112E-07
65.0	0.000E+00	0.000E+00	0.000E+00	1.078E-07
75.0	0.000E+00	0.000E+00	0.000E+00	1.047E-07

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET:

PAGE 10
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.819E-04	6.395E-04	1.129E-03	1.648E-03	2.465E-03	2.953E-03	3.397E-03	3.821E-03
NNE	0.000E+00	0.000E+00	0.000E+00	8.203E-06	2.232E-05	1.583E-03	1.034E-03	1.466E-03	2.223E-03	2.827E-03	5.959E-03	5.301E-03
NE	0.000E+00	0.000E+00	0.000E+00	7.021E-06	5.559E-05	4.608E-04	8.401E-04	1.206E-03	1.658E-03	3.855E-03	6.412E-03	7.405E-03
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.874E-05	2.693E-04	4.722E-04	4.411E-02	1.161E-03	1.705E-03	4.704E-03	2.207E-02
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.631E-04	2.737E-04	3.795E-04	5.731E-04	4.196E-03	1.184E-03	6.005E-03
ESE	4.260E-06	6.946E-06	0.000E+00	0.000E+00	1.511E-05	1.249E-04	2.070E-04	2.842E-04	3.824E-04	7.460E-04	8.866E-04	1.002E-03
SE	0.000E+00	0.000E+00	1.042E-05	1.132E-05	4.173E-05	1.382E-04	2.420E-04	4.675E-04	8.974E-04	1.128E-03	1.256E-03	1.338E-03
SSE	0.000E+00	0.000E+00	0.000E+00	1.774E-05	3.491E-05	1.604E-04	4.080E-04	4.012E-04	6.022E-03	1.316E-03	1.533E-03	4.406E-02
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.740E-05	2.742E-04	8.248E-04	1.490E-03	1.894E-03	2.189E-03	2.285E-03	8.933E-03
SSW	2.330E-06	0.000E+00	0.000E+00	0.000E+00	2.787E-05	2.867E-04	4.697E-04	5.187E-04	5.385E-04	6.033E-04	6.967E-04	8.309E-03
SW	4.555E-06	1.156E-05	0.000E+00	0.000E+00	2.068E-05	1.901E-04	2.470E-04	3.521E-04	4.389E-04	5.438E-04	6.311E-04	1.101E-03
WSW	0.000E+00	0.000E+00	6.121E-06	0.000E+00	4.905E-05	1.146E-04	1.698E-04	2.335E-04	2.823E-04	3.777E-04	1.059E-03	1.509E-03
W	0.000E+00	1.570E-05	0.000E+00	0.000E+00	2.122E-05	1.279E-04	1.068E-04	1.427E-04	1.183E-03	8.133E-04	5.231E-04	6.107E-04
WNW	0.000E+00	0.000E+00	0.000E+00	8.804E-06	4.635E-04	9.030E-05	1.218E-04	1.688E-04	2.052E-04	2.583E-04	3.368E-04	3.925E-04
NW	5.016E-06	0.000E+00	7.815E-06	0.000E+00	8.207E-03	1.633E-04	1.771E-04	2.300E-04	2.787E-04	5.012E-04	7.715E-04	7.282E-04
NNW	5.814E-06	8.238E-06	0.000E+00	3.362E-05	1.783E-04	2.408E-04	6.219E-04	6.571E-04	1.489E-03	1.733E-03	1.954E-03	3.435E-03

TOTAL DOSE COMMITMENT IS 2.727E-01 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS=AREA (02/97)
METSET:

PAGE 11
DATA: TC1.MIL
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.476E-03	5.188E-03	9.157E-03	1.336E-02	1.998E-02	2.392E-02	2.751E-02	3.093E-02
NNE	0.000E+00	0.000E+00	0.000E+00	6.657E-05	1.811E-04	1.284E-02	8.384E-03	1.188E-02	1.801E-02	2.290E-02	4.825E-02	4.290E-02
NE	0.000E+00	0.000E+00	0.000E+00	5.697E-05	4.511E-04	3.737E-03	6.812E-03	9.775E-03	1.343E-02	3.123E-02	5.191E-02	5.994E-02
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.766E-04	2.184E-03	3.829E-03	3.575E-01	9.410E-03	1.381E-02	3.808E-02	1.786E-01
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.323E-03	2.219E-03	3.075E-03	4.643E-03	3.398E-02	9.583E-03	4.859E-02
ESE	3.456E-05	5.636E-05	0.000E+00	0.000E+00	1.226E-04	1.013E-03	1.679E-03	2.304E-03	3.098E-03	6.042E-03	7.177E-03	8.108E-03
SE	0.000E+00	0.000E+00	8.452E-05	9.184E-05	3.386E-04	1.121E-03	1.962E-03	3.789E-03	7.271E-03	9.139E-03	1.017E-02	1.083E-02
SSE	0.000E+00	0.000E+00	0.000E+00	1.439E-04	2.832E-05	1.301E-03	3.308E-03	3.252E-03	4.880E-02	1.066E-02	1.241E-02	3.566E-01
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.657E-04	2.224E-03	6.688E-03	1.208E-02	1.534E-02	1.773E-02	1.850E-02	7.229E-02
SSW	1.891E-05	0.000E+00	0.000E+00	0.000E+00	2.261E-04	2.326E-03	3.809E-03	4.204E-03	4.363E-03	4.887E-03	5.641E-03	6.726E-02
SW	3.696E-05	9.384E-05	0.000E+00	0.000E+00	1.678E-04	1.542E-03	2.003E-03	2.855E-03	3.557E-03	4.405E-03	5.111E-03	8.917E-03
WSW	0.000E+00	0.000E+00	4.967E-05	0.000E+00	3.980E-04	9.299E-04	1.377E-03	1.893E-03	2.288E-03	3.060E-03	8.572E-03	1.221E-02
W	0.000E+00	1.274E-04	0.000E+00	0.000E+00	1.722E-04	1.038E-03	8.664E-04	1.157E-03	9.589E-03	6.588E-03	4.236E-03	4.943E-03
WNW	0.000E+00	0.000E+00	0.000E+00	7.145E-05	3.761E-03	7.326E-04	9.880E-04	1.368E-03	1.663E-03	2.092E-03	2.727E-03	3.177E-03
NW	4.070E-05	0.000E+00	6.341E-05	0.000E+00	6.659E-02	1.325E-03	1.437E-03	1.865E-03	2.258E-03	4.060E-03	6.248E-03	5.894E-03
NNW	4.718E-05	6.685E-05	0.000E+00	2.728E-04	1.447E-03	1.953E-03	5.043E-03	5.327E-03	1.207E-02	1.404E-02	1.582E-02	2.781E-02

TOTAL DOSE COMMITMENT IS 2.209E+00 PERSON-REM/YR

REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 12
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS AVG.LUNG

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO	XRHO	XRHO	XRHO								
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.110E-05	7.524E-05	1.358E-04	2.026E-04	3.097E-04	3.790E-04	4.454E-04	5.115E-04
NNE	0.000E+00	0.000E+00	0.000E+00	9.474E-07	2.592E-06	1.869E-04	1.246E-04	1.806E-04	2.798E-04	3.636E-04	7.827E-04	7.109E-04
NE	0.000E+00	0.000E+00	0.000E+00	8.117E-07	6.461E-06	5.445E-05	1.015E-04	1.488E-04	2.089E-04	4.959E-04	8.415E-04	9.914E-04
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.843E-06	3.191E-05	5.726E-05	5.469E-03	1.472E-04	2.208E-04	6.221E-04	2.980E-03
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.937E-05	3.328E-05	4.722E-05	7.296E-05	5.463E-04	1.575E-04	8.164E-04
ESE	4.951E-07	8.074E-07	0.000E+00	0.000E+00	1.769E-06	1.485E-05	2.517E-05	3.533E-05	4.857E-05	9.680E-05	1.175E-04	1.355E-04
SE	0.000E+00	0.000E+00	1.210E-06	1.316E-06	4.875E-06	1.640E-05	2.934E-05	5.786E-05	1.133E-04	1.452E-04	1.646E-04	1.787E-04
SSE	0.000E+00	0.000E+00	0.000E+00	2.060E-06	4.073E-07	1.901E-05	4.943E-05	4.963E-05	7.605E-04	1.696E-04	2.015E-04	5.902E-03
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.677E-06	3.246E-05	9.994E-05	1.847E-04	2.7402E-04	2.839E-04	3.029E-04	1.210E-03
SSW	2.697E-07	0.000E+00	0.000E+00	0.000E+00	3.242E-06	3.389E-05	5.671E-05	6.396E-05	6.780E-05	7.755E-05	9.140E-05	1.112E-03
SW	5.270E-07	1.336E-06	0.000E+00	0.000E+00	2.405E-06	2.237E-05	2.966E-05	4.312E-05	5.480E-05	6.920E-05	8.182E-05	1.455E-04
WSW	0.000E+00	0.000E+00	7.073E-07	0.000E+00	5.697E-06	1.347E-05	2.038E-05	2.863E-05	3.539E-05	4.837E-05	1.385E-04	2.015E-04
W	0.000E+00	1.813E-06	0.000E+00	0.000E+00	2.453E-06	1.499E-05	1.281E-05	1.751E-05	1.485E-04	1.043E-04	6.854E-05	8.171E-05
WNW	0.000E+00	0.000E+00	0.000E+00	1.015E-06	5.344E-05	1.057E-05	1.463E-05	2.075E-05	2.583E-05	3.330E-05	4.444E-05	5.299E-05
NW	5.802E-07	0.000E+00	9.015E-07	0.000E+00	9.482E-04	1.913E-05	2.121E-05	2.816E-05	3.487E-05	6.410E-05	1.008E-04	9.713E-05
NNW	6.721E-07	9.502E-07	0.000E+00	3.879E-06	2.067E-05	2.823E-05	7.455E-05	8.051E-05	1.864E-04	2.216E-04	2.550E-04	4.577E-04

TOTAL DOSE COMMITMENT IS 3.530E-02 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol. CODE: MILDOS-AREA (02/97)
METSET:

PAGE 13
DATA: TC1.MIL
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL. EXPOSED ORGAN IS BRONCHI

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0	
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.430E-01	1.566E+00	1.333E+00	1.292E+00	1.443E+00	1.379E+00	1.320E+00	1.272E+00	
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	8.927E-02	1.050E-01	3.017E+00	1.101E+00	1.054E+00	1.198E+00	1.216E+00	2.131E+00	1.622E+00
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.688E-02	2.726E-01	8.911E-01	8.985E-01	8.907E-01	9.351E-01	1.757E+00	2.452E+00	2.439E+00
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.448E-01	4.690E-01	4.588E-01	2.997E+01	6.064E-01	7.226E-01	1.677E+00	6.791E+00	
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.486E-01	2.383E-01	2.313E-01	2.688E-01	1.599E+00	3.799E-01	1.664E+00	
ESE	1.316E-01	1.054E-01	0.000E+00	0.000E+00	5.730E-02	2.224E-01	2.152E-01	2.078E-01	2.151E-01	3.405E-01	3.404E-01	3.319E-01	
SE	0.000E+00	0.000E+00	1.475E-01	1.134E-01	2.248E-01	3.448E-01	3.549E-01	4.866E-01	7.247E-01	7.452E-01	7.024E-01	6.497E-01	
SSE	0.000E+00	0.000E+00	0.000E+00	1.616E-01	1.646E-02	3.471E-01	5.059E-01	3.449E-01	3.956E+00	6.993E-01	6.841E-01	1.695E+01	
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.317E-01	4.592E-01	7.497E-01	9.218E-01	8.849E-01	8.206E-01	7.142E-01	2.393E+00	
SSW	1.627E-01	0.000E+00	0.000E+00	0.000E+00	1.403E-01	5.649E-01	5.015E-01	3.873E-01	3.078E-01	2.789E-01	2.703E-01	2.776E+00	
SW	2.887E-01	3.300E-01	0.000E+00	0.000E+00	1.302E-01	4.925E-01	3.404E-01	3.260E-01	3.046E-01	3.013E-01	2.909E-01	4.345E-01	
WSW	0.000E+00	0.000E+00	7.363E-02	0.000E+00	5.982E-01	3.452E-01	2.172E-01	1.888E-01	1.660E-01	1.742E-01	4.011E-01	4.848E-01	
W	0.000E+00	2.519E-01	0.000E+00	0.000E+00	1.019E+00	3.600E-01	1.280E-01	1.093E-01	6.733E-01	3.681E-01	1.966E-01	1.962E-01	
WNW	0.000E+00	0.000E+00	0.000E+00	7.948E-02	4.145E+00	2.332E-01	1.242E-01	1.068E-01	9.350E-02	9.173E-02	9.780E-02	9.628E-02	
NW	2.532E-01	0.000E+00	9.706E-02	0.000E+00	5.223E+01	4.481E-01	2.162E-01	1.801E-01	1.600E-01	2.270E-01	2.884E-01	2.316E-01	
NNW	4.449E-01	6.812E-01	0.000E+00	3.933E-01	1.062E+00	9.902E-01	8.014E-01	5.340E-01	8.889E-01	8.186E-01	7.640E-01	1.146E+00	

TOTAL DOSE COMMITMENT IS 1.983E+02 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 14
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS GROUND EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO .15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.084E-04	1.843E-04	1.633E-04	1.643E-04	1.903E-04	1.883E-04	1.865E-04	1.855E-04
NNE	0.000E+00	0.000E+00	0.000E+00	1.011E-05	1.211E-05	3.590E-04	1.360E-04	1.353E-04	1.599E-04	1.685E-04	3.061E-04	2.412E-04
NE	0.000E+00	0.000E+00	0.000E+00	8.706E-06	3.145E-05	1.060E-04	1.109E-04	1.140E-04	1.239E-04	2.410E-04	3.474E-04	3.567E-04
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.831E-05	5.606E-05	5.711E-05	3.875E-03	8.132E-05	1.004E-04	2.410E-04	1.009E-03
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.994E-05	2.997E-05	3.033E-05	3.667E-05	2.267E-04	5.589E-05	2.537E-04
ESE	1.269E-05	1.124E-05	0.000E+00	0.000E+00	6.632E-06	2.655E-05	2.663E-05	2.662E-05	2.852E-05	4.668E-05	4.818E-05	4.847E-05
SE	0.000E+00	0.000E+00	1.576E-05	1.250E-05	2.569E-05	4.054E-05	4.284E-05	6.021E-05	9.185E-05	9.668E-05	9.320E-05	8.812E-05
SSE	0.000E+00	0.000E+00	0.000E+00	1.814E-05	1.896E-06	4.106E-05	6.175E-05	4.343E-05	5.136E-04	9.351E-05	9.414E-05	2.398E-03
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.684E-05	5.500E-05	9.390E-05	1.206E-04	1.208E-04	1.167E-04	1.057E-04	3.680E-04
SSW	1.526E-05	0.000E+00	0.000E+00	0.000E+00	1.614E-05	6.711E-05	6.192E-05	4.951E-05	4.072E-05	3.815E-05	3.818E-05	4.046E-04
SW	2.798E-05	3.539E-05	0.000E+00	0.000E+00	1.485E-05	5.784E-05	4.125E-05	4.076E-05	3.927E-05	4.004E-05	3.981E-05	6.118E-05
WSW	0.000E+00	0.000E+00	8.263E-06	0.000E+00	6.141E-05	4.030E-05	2.645E-05	2.393E-05	2.188E-05	2.383E-05	5.693E-05	7.129E-05
W	0.000E+00	2.755E-05	0.000E+00	0.000E+00	1.056E-04	4.216E-05	1.566E-05	1.393E-05	8.913E-05	5.053E-05	2.795E-05	2.885E-05
WNW	0.000E+00	0.000E+00	0.000E+00	9.041E-06	4.708E-04	2.738E-05	1.540E-05	1.393E-05	1.282E-05	1.320E-05	1.473E-05	1.517E-05
NW	2.468E-05	0.000E+00	1.085E-05	0.000E+00	5.986E-03	5.250E-05	2.642E-05	2.290E-05	2.116E-05	3.116E-05	4.105E-05	3.414E-05
NNW	4.233E-05	6.164E-05	0.000E+00	4.407E-05	1.206E-04	1.138E-04	9.755E-05	6.764E-05	1.169E-04	1.116E-04	1.078E-04	1.671E-04

TOTAL DOSE COMMITMENT IS 2.533E-02 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET:

PAGE 15
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS CLOUD EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.928E-03	9.990E-03	1.018E-02	1.051E-02	1.213E-02	1.182E-02	1.145E-02	1.110E-02
NNE	0.000E+00	0.000E+00	0.000E+00	3.658E-04	5.805E-04	2.133E-02	8.768E-03	8.845E-03	1.030E-02	1.059E-02	1.867E-02	1.426E-02
NE	0.000E+00	0.000E+00	0.000E+00	3.022E-04	1.438E-03	6.202E-03	7.143E-03	7.474E-03	8.047E-03	1.531E-02	2.150E-02	2.147E-02
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.334E-03	3.248E-03	3.612E-03	2.492E-01	5.181E-03	6.264E-03	1.465E-02	5.961E-02
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.771E-03	1.890E-03	1.926E-03	2.294E-03	1.384E-02	3.314E-03	1.459E-02
ESE	2.015E-04	2.857E-04	0.000E+00	0.000E+00	3.021E-04	1.467E-03	1.626E-03	1.679E-03	1.802E-03	2.913E-03	2.947E-03	2.895E-03
SE	0.000E+00	0.000E+00	3.977E-04	3.693E-04	9.428E-04	1.930E-03	2.415E-03	3.674E-03	5.808E-03	6.190E-03	5.965E-03	5.594E-03
SSE	0.000E+00	0.000E+00	0.000E+00	6.181E-04	8.027E-05	2.166E-03	3.731E-03	2.763E-03	3.307E-02	5.984E-03	5.930E-03	1.480E-01
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.342E-03	3.267E-03	6.038E-03	7.791E-03	7.643E-03	7.163E-03	6.268E-03	2.106E-02
SSW	1.746E-04	0.000E+00	0.000E+00	0.000E+00	7.002E-04	3.826E-03	3.936E-03	3.208E-03	2.622E-03	2.413E-03	2.358E-03	2.434E-02
SW	3.320E-04	7.226E-04	0.000E+00	0.000E+00	5.898E-04	3.159E-03	2.582E-03	2.671E-03	2.586E-03	2.605E-03	2.539E-03	3.812E-03
WSW	0.000E+00	0.000E+00	2.829E-04	0.000E+00	1.659E-03	2.024E-03	1.659E-03	1.563E-03	1.421E-03	1.513E-03	3.512E-03	4.261E-03
W	0.000E+00	7.747E-04	0.000E+00	0.000E+00	1.668E-03	2.283E-03	9.840E-04	9.069E-04	5.776E-03	3.207E-03	1.725E-03	1.728E-03
WNW	0.000E+00	0.000E+00	0.000E+00	3.769E-04	1.928E-02	1.509E-03	9.824E-04	9.017E-04	8.095E-04	8.026E-04	8.599E-04	8.486E-04
NW	3.119E-04	0.000E+00	3.559E-04	0.000E+00	2.764E-01	2.862E-03	1.673E-03	1.490E-03	1.365E-03	1.967E-03	2.520E-03	2.033E-03
NNW	4.673E-04	6.468E-04	0.000E+00	1.511E-03	5.205E-03	5.175E-03	6.017E-03	4.350E-03	7.499E-03	7.035E-03	6.636E-03	1.002E-02

TOTAL DOSE COMMITMENT IS 1.434E+00 PERSON-REM/YR

1REGION: Crow Butte Three Crow Ol. CODE: MILDOS-AREA (02/97)
METSET: DATA: TC1.MIL

PAGE 16
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS VEG. ING EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO											
	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0	55.0	65.0	75.0
N	3.417E-03	8.817E-03	1.715E-02	2.731E-02	3.050E-01	1.649E+00	2.911E+00	4.066E+00	5.122E+00	6.107E+00	7.037E+00	7.919E+00
NNE	3.314E-03	8.318E-03	1.558E-02	2.475E-02	2.807E-01	1.434E+00	2.665E+00	3.734E+00	4.716E+00	5.626E+00	6.480E+00	7.284E+00
NE	3.096E-03	7.491E-03	1.371E-02	2.118E-02	2.330E-01	1.188E+00	2.166E+00	3.106E+00	4.028E+00	4.895E+00	5.715E+00	6.494E+00
ENE	2.741E-03	5.823E-03	9.840E-03	1.444E-02	1.477E-01	6.942E-01	1.217E+00	1.728E+00	2.229E+00	2.706E+00	3.162E+00	3.598E+00
E	2.352E-03	4.536E-03	7.179E-03	1.023E-02	9.866E-02	4.204E-01	7.055E-01	9.771E-01	1.233E+00	1.475E+00	1.705E+00	1.926E+00
ESE	2.142E-03	3.882E-03	5.972E-03	8.160E-03	7.601E-02	3.220E-01	5.336E-01	7.319E-01	9.216E-01	1.103E+00	1.277E+00	1.444E+00
SE	2.046E-03	3.894E-03	6.109E-03	8.537E-03	8.073E-02	3.561E-01	6.237E-01	8.835E-01	1.136E+00	1.380E+00	1.616E+00	1.844E+00
SSE	2.103E-03	4.031E-03	6.371E-03	8.920E-03	8.779E-02	4.134E-01	7.273E-01	1.033E+00	1.327E+00	1.610E+00	1.884E+00	2.148E+00
S	2.290E-03	5.028E-03	8.669E-03	1.280E-02	1.444E-01	7.069E-01	1.256E+00	1.819E+00	2.348E+00	2.848E+00	3.324E+00	3.777E+00
SSW	2.343E-03	4.997E-03	8.512E-03	1.253E-02	1.402E-01	7.391E-01	1.357E+00	1.899E+00	2.421E+00	2.923E+00	3.405E+00	3.870E+00
SW	2.291E-03	4.848E-03	8.024E-03	1.150E-02	1.300E-01	6.827E-01	1.183E+00	1.684E+00	2.168E+00	2.635E+00	3.085E+00	3.520E+00
WSW	2.231E-03	4.438E-03	7.180E-03	1.021E-02	9.489E-02	4.802E-01	8.132E-01	1.117E+00	1.395E+00	1.656E+00	1.903E+00	2.138E+00
W	2.236E-03	4.387E-03	7.057E-03	1.003E-02	8.895E-02	3.297E-01	5.115E-01	6.827E-01	8.449E-01	9.981E-01	1.144E+00	1.282E+00
WNW	2.353E-03	4.725E-03	8.398E-03	1.328E-02	1.388E-01	3.948E-01	5.833E-01	8.073E-01	1.013E+00	1.204E+00	1.382E+00	1.550E+00
NW	2.522E-03	5.155E-03	9.167E-03	1.448E-02	1.578E-01	5.865E-01	8.482E-01	1.100E+00	1.333E+00	1.551E+00	1.757E+00	1.953E+00
NNW	2.924E-03	6.906E-03	1.300E-02	2.029E-02	2.136E-01	1.153E+00	1.930E+00	2.525E+00	3.073E+00	3.584E+00	4.067E+00	4.523E+00

TOTAL DOSE COMMITMENT IS 2.442E+02 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET:

DATA: TCI.MIL

PAGE 17
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS VEG. ING EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR.

DIRECTION	XRHO											
N	3.948E-02	1.019E-01	1.982E-01	3.155E-01	3.525E+00	1.905E+01	3.364E+01	4.699E+01	5.919E+01	7.057E+01	8.131E+01	9.151E+01
NNE	3.830E-02	9.612E-02	1.800E-01	2.860E-01	3.243E+00	1.657E+01	3.080E+01	4.315E+01	5.450E+01	6.501E+01	7.487E+01	8.417E+01
NE	3.577E-02	8.656E-02	1.584E-01	2.448E-01	2.693E+00	1.372E+01	2.503E+01	3.589E+01	4.654E+01	5.656E+01	6.604E+01	7.504E+01
ENE	3.167E-02	6.729E-02	1.137E-01	1.669E-01	1.707E+00	8.022E+00	1.406E+01	1.997E+01	2.575E+01	3.127E+01	3.654E+01	4.157E+01
E	2.718E-02	5.241E-02	8.296E-02	1.182E-01	1.140E+00	4.858E+00	8.152E+00	1.129E+01	1.425E+01	1.705E+01	1.970E+01	2.226E+01
ESE	2.475E-02	4.486E-02	6.901E-02	9.430E-02	8.783E-01	3.721E+00	6.166E+00	8.458E+00	1.065E+01	1.274E+01	1.475E+01	1.668E+01
SE	2.364E-02	4.500E-02	7.059E-02	9.865E-02	9.328E-01	4.115E+00	7.207E+00	1.021E+01	1.313E+01	1.595E+01	1.868E+01	2.131E+01
SSE	2.430E-02	4.658E-02	7.362E-02	1.031E-01	1.014E+00	4.777E+00	8.404E+00	1.194E+01	1.534E+01	1.860E+01	2.177E+01	2.482E+01
S	2.646E-02	5.810E-02	1.002E-01	1.479E-01	1.668E+00	8.168E+00	1.452E+01	2.101E+01	2.713E+01	3.291E+01	3.841E+01	4.365E+01
SSW	2.708E-02	5.775E-02	9.836E-02	1.448E-01	1.620E+00	8.541E+00	1.568E+01	2.195E+01	2.798E+01	3.377E+01	3.935E+01	4.472E+01
SW	2.647E-02	5.602E-02	9.272E-02	1.329E-01	1.502E+00	7.888E+00	1.367E+01	1.946E+01	2.506E+01	3.044E+01	3.565E+01	4.067E+01
WSW	2.578E-02	5.128E-02	8.297E-02	1.180E-01	1.096E+00	5.549E+00	9.397E+00	1.290E+01	1.611E+01	1.913E+01	2.199E+01	2.471E+01
W	2.583E-02	5.069E-02	8.154E-02	1.159E-01	1.028E+00	3.810E+00	5.911E+00	7.889E+00	9.763E+00	1.153E+01	1.321E+01	1.481E+01
WNW	2.719E-02	5.460E-02	9.705E-02	1.535E-01	1.604E+00	4.562E+00	6.741E+00	9.328E+00	1.171E+01	1.391E+01	1.597E+01	1.791E+01
NW	2.914E-02	5.957E-02	1.059E-01	1.674E-01	1.824E+00	6.777E+00	9.801E+00	1.272E+01	1.540E+01	1.792E+01	2.031E+01	2.257E+01
NNW	3.378E-02	7.981E-02	1.502E-01	2.344E-01	2.468E+00	1.332E+01	2.230E+01	2.917E+01	3.551E+01	4.142E+01	4.699E+01	5.226E+01

TOTAL DOSE COMMITMENT IS 2.822E+03 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow O1 CODE: MILDOS-AREA (02/97)
METSET:

PAGE 18
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MEAT ING EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	2.941E-05	7.589E-05	1.477E-04	2.350E-04	2.625E-03	1.419E-02	2.506E-02	3.500E-02	4.409E-02	5.257E-02	6.057E-02	6.816E-02
NNE	2.853E-05	7.160E-05	1.341E-04	2.130E-04	2.416E-03	1.234E-02	2.294E-02	3.214E-02	4.059E-02	4.843E-02	5.577E-02	6.270E-02
NE	2.664E-05	6.448E-05	1.180E-04	1.823E-04	2.006E-03	1.022E-02	1.864E-02	2.673E-02	3.467E-02	4.213E-02	4.919E-02	5.590E-02
ENE	2.359E-05	5.012E-05	8.470E-05	1.243E-04	1.271E-03	5.976E-03	1.048E-02	1.487E-02	1.918E-02	2.329E-02	2.722E-02	3.097E-02
E	2.025E-05	3.904E-05	6.180E-05	8.802E-05	8.492E-04	3.619E-03	6.072E-03	8.411E-03	1.061E-02	1.270E-02	1.467E-02	1.658E-02
ESE	1.844E-05	3.341E-05	5.140E-05	7.024E-05	6.543E-04	2.772E-03	4.593E-03	6.300E-03	7.933E-03	9.493E-03	1.099E-02	1.243E-02
SE	1.761E-05	3.352E-05	5.258E-05	7.349E-05	6.949E-04	3.065E-03	5.369E-03	7.605E-03	9.777E-03	1.188E-02	1.391E-02	1.588E-02
SSE	1.810E-05	3.469E-05	5.484E-05	7.677E-05	7.557E-04	3.558E-03	6.260E-03	8.892E-03	1.142E-02	1.386E-02	1.622E-02	1.849E-02
S	1.971E-05	4.328E-05	7.462E-05	1.102E-04	1.243E-03	6.085E-03	1.081E-02	1.565E-02	2.021E-02	2.451E-02	2.861E-02	3.251E-02
SSW	2.017E-05	4.302E-05	7.327E-05	1.079E-04	1.206E-03	6.362E-03	1.168E-02	1.635E-02	2.084E-02	2.516E-02	2.931E-02	3.331E-02
SW	1.972E-05	4.173E-05	6.907E-05	9.897E-05	1.119E-03	5.876E-03	1.018E-02	1.450E-02	1.866E-02	2.268E-02	2.655E-02	3.030E-02
WSW	1.921E-05	3.820E-05	6.180E-05	8.789E-05	8.168E-04	4.134E-03	6.999E-03	9.612E-03	1.200E-02	1.425E-02	1.638E-02	1.840E-02
W	1.924E-05	3.776E-05	6.074E-05	8.637E-05	7.656E-04	2.838E-03	4.403E-03	5.876E-03	7.272E-03	8.591E-03	9.843E-03	1.103E-02
WNW	2.025E-05	4.067E-05	7.229E-05	1.143E-04	1.195E-03	3.398E-03	5.021E-03	6.948E-03	8.723E-03	1.036E-02	1.190E-02	1.334E-02
NW	2.171E-05	4.437E-05	7.891E-05	1.247E-04	1.358E-03	5.048E-03	7.300E-03	9.471E-03	1.147E-02	1.335E-02	1.513E-02	1.681E-02
NNW	2.516E-05	5.945E-05	1.119E-04	1.746E-04	1.838E-03	9.922E-03	1.661E-02	2.173E-02	2.645E-02	3.085E-02	3.500E-02	3.893E-02

TOTAL DOSE COMMITMENT IS 2.102E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 19
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MEAT ING EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO											
	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0	55.0	65.0	
N	3.398E-04	8.770E-04	1.706E-03	2.716E-03	3.034E-02	1.640E-01	2.895E-01	4.044E-01	5.095E-01	6.075E-01	6.999E-01	7.877E-01
NNE	3.297E-04	8.273E-04	1.549E-03	2.462E-03	2.792E-02	1.426E-01	2.651E-01	3.714E-01	4.691E-01	5.596E-01	6.445E-01	7.245E-01
NE	3.079E-04	7.451E-04	1.363E-03	2.107E-03	2.318E-02	1.181E-01	2.154E-01	3.089E-01	4.006E-01	4.868E-01	5.684E-01	6.459E-01
ENE	2.726E-04	5.792E-04	9.787E-04	1.436E-03	1.469E-02	6.905E-02	1.211E-01	1.719E-01	2.217E-01	2.691E-01	3.145E-01	3.578E-01
E	2.340E-04	4.512E-04	7.141E-04	0.017E-03	9.813E-03	4.181E-02	7.017E-02	9.719E-02	1.226E-01	1.467E-01	1.696E-01	1.916E-01
ESE	2.130E-04	3.861E-04	5.940E-04	8.116E-04	7.560E-03	3.203E-02	5.308E-02	7.280E-02	9.166E-02	1.097E-01	1.270E-01	1.436E-01
SE	2.035E-04	3.873E-04	6.076E-04	8.491E-04	8.029E-03	3.542E-02	6.204E-02	8.788E-02	1.130E-01	1.373E-01	1.608E-01	1.834E-01
SSE	2.092E-04	4.009E-04	6.336E-04	8.871E-04	8.732E-03	4.111E-02	7.234E-02	1.028E-01	1.320E-01	1.601E-01	1.874E-01	2.136E-01
S	2.277E-04	5.001E-04	8.622E-04	1.273E-03	1.436E-02	7.031E-02	1.250E-01	1.809E-01	2.335E-01	2.833E-01	3.306E-01	3.757E-01
SSW	2.331E-04	4.971E-04	8.466E-04	1.247E-03	1.394E-02	7.351E-02	1.350E-01	1.889E-01	2.408E-01	2.907E-01	3.387E-01	3.849E-01
SW	2.278E-04	4.822E-04	7.981E-04	1.144E-03	1.293E-02	6.790E-02	1.176E-01	1.675E-01	2.157E-01	2.620E-01	3.068E-01	3.501E-01
WSW	2.219E-04	4.414E-04	7.142E-04	1.016E-03	9.438E-03	4.777E-02	8.088E-02	1.111E-01	1.387E-01	1.647E-01	1.893E-01	2.126E-01
W	2.224E-04	4.363E-04	7.018E-04	9.980E-04	8.847E-03	3.280E-02	5.088E-02	6.790E-02	8.403E-02	9.928E-02	1.137E-01	1.275E-01
WNW	2.340E-04	4.700E-04	8.353E-04	1.321E-03	1.380E-02	3.926E-02	5.802E-02	8.029E-02	1.008E-01	1.197E-01	1.375E-01	1.542E-01
NW	2.509E-04	5.128E-04	9.118E-04	1.441E-03	1.570E-02	5.833E-02	8.436E-02	1.094E-01	1.326E-01	1.543E-01	1.748E-01	1.943E-01
NNW	2.908E-04	6.869E-04	1.293E-03	2.018E-03	2.124E-02	1.147E-01	1.919E-01	2.511E-01	3.056E-01	3.565E-01	4.045E-01	4.498E-01

TOTAL DOSE COMMITMENT IS 2.429E+01 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow OI
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TCI.MIL

PAGE 20
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MILK ING EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO											
	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0	55.0	65.0	75.0
N	0.000E+00											
NNE	0.000E+00											
NE	0.000E+00											
ENE	0.000E+00											
E	0.000E+00											
ESE	0.000E+00											
SE	0.000E+00											
SSE	0.000E+00											
S	0.000E+00											
SSW	0.000E+00											
SW	0.000E+00											
WSW	0.000E+00											
W	0.000E+00											
WNW	0.000E+00											
NW	0.000E+00											
NNW	0.000E+00											

TOTAL DOSE COMMITMENT IS 0.000E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 21
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MILK ING EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DIRECTION	XRHO 1.5	XRHO 2.5	XRHO 3.5	XRHO 4.5	XRHO 7.5	XRHO 15.0	XRHO 25.0	XRHO 35.0	XRHO 45.0	XRHO 55.0	XRHO 65.0	XRHO 75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

TOTAL DOSE COMMITMENT IS 0.000E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED
BY THE POPULATION OF THIS REGION. SEE SUMMARY
TABLE FOR THIS INFORMATION.

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET:

PAGE 22
06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

SUMMARY PRINT OF POPULATION DOSES COMPUTED FOR TSTEP 1--DOSES SHOWN ARE ANNUAL POPULATION DOSE COMMITMENTS, PERSON-REM PER YEAR

DOSES RECEIVED BY PEOPLE WITHIN 80 KILOMETERS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INHAL.	2.727E-01	2.209E+00	3.530E-02	1.657E+00	7.965E-01	1.983E+02
GROUND	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02
CLOUD	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00
VEG. ING	1.657E+00	1.914E+01	1.657E+00	5.690E+00	4.635E+00	1.657E+00
MEAT ING	1.152E-01	1.332E+00	1.152E-01	3.958E-01	3.224E-01	1.152E-01
MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RNPLUS50	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTALS	3.504E+00	2.414E+01	3.266E+00	9.202E+00	7.213E+00	2.015E+02

DOSES RECEIVED BY PEOPLE BEYOND 80 KILOMETERS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INHAL.	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GROUND	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CLOUD	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
VEG. ING	2.426E+02	2.803E+03	2.426E+02	8.331E+02	6.786E+02	2.426E+02
MEAT ING	1.987E+00	2.296E+01	1.987E+00	6.824E+00	5.558E+00	1.987E+00
MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RNPLUS50	8.469E+01	1.155E+03	1.925E+01	8.469E+01	8.469E+01	5.389E+02
TOTALS	3.292E+02	3.981E+03	2.638E+02	9.246E+02	7.688E+02	7.835E+02

TOTAL DOSES COMPUTED OVER ALL POPULATIONS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INHAL.	2.727E-01	2.209E+00	3.530E-02	1.657E+00	7.965E-01	1.983E+02
GROUND	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02	2.533E-02
CLOUD	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00	1.434E+00
VEG. ING	2.442E+02	2.822E+03	2.442E+02	8.388E+02	6.832E+02	2.442E+02
MEAT ING	2.102E+00	2.429E+01	2.102E+00	7.220E+00	5.881E+00	2.102E+00
MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RNPLUS50	8.469E+01	1.155E+03	1.925E+01	8.469E+01	8.469E+01	5.389E+02
TOTALS	3.327E+02	4.005E+03	2.671E+02	9.338E+02	7.760E+02	9.850E+02

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 23
METSET: DATA: TC1.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.

NUMBER 1 NAME=Three Crow 1 X= -8.2KM, Y= -1.2KM, Z= 0.0M, DIST= 8.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

IREGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
 METSET: DATA: TC1.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 1 NAME=Three Crow 1 X= -8.2KM, Y= -1.2KM, Z= 0.0M, DIST= 8.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	3.21E+01	2.19E-02	2.07E-03	1.14E-01	4.42E-02	5.35E+02
INFANT	GROUND	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02
INFANT	CLOUD	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	3.23E+01	1.77E-01	1.57E-01	2.69E-01	1.99E-01	5.35E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	3.21E+01	1.66E-02	9.66E-04	5.06E-02	2.08E-02	5.35E+02
CHILD	GROUND	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02
CHILD	CLOUD	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01
CHILD	VEG. ING	1.49E-03	1.72E-02	5.12E-03	5.12E-03	4.17E-03	0.00E+00
CHILD	MEAT ING	3.01E-04	3.48E-03	1.03E-03	1.03E-03	8.42E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	3.23E+01	1.93E-01	1.62E-01	2.12E-01	1.81E-01	5.35E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	3.21E+01	4.09E-02	4.14E-04	2.17E-02	1.04E-02	5.35E+02
TEENAGE	GROUND	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02
TEENAGE	CLOUD	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01
TEENAGE	VEG. ING	2.46E-03	2.85E-02	8.46E-03	8.46E-03	6.89E-03	0.00E+00
TEENAGE	MEAT ING	4.88E-04	5.64E-03	1.68E-03	1.68E-03	1.37E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	3.23E+01	2.30E-01	1.66E-01	1.87E-01	1.74E-01	5.35E+02
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	3.21E+01	2.41E-02	3.45E-04	1.81E-02	8.67E-03	5.35E+02
ADULT	GROUND	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02	3.61E-02
ADULT	CLOUD	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01
ADULT	VEG. ING	3.40E-03	3.93E-02	1.17E-02	1.17E-02	9.52E-03	0.00E+00
ADULT	MEAT ING	8.54E-04	9.87E-03	2.93E-03	2.93E-03	2.39E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	3.23E+01	2.29E-01	1.70E-01	1.88E-01	1.76E-01	5.35E+02

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 25
06/02/10

DURATION IN YRS IS... 5.0

NUMBER 2 NAME=Three Crow 2 X= -11.3KM, Y= -0.6KM, Z= 0.0M, DIST= 11.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 26
METSET: DATA: TCI.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 2 NAME=Three Crow 2 X= -11.3KM, Y= -0.6KM, Z= 0.0M, DIST= 11.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.00E+00	2.31E-02	2.19E-03	1.20E-01	4.66E-02	1.66E+01
INFANT	GROUND	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03
INFANT	CLOUD	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.09E+00	1.06E-01	8.50E-02	2.03E-01	1.29E-01	1.67E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.00E+00	1.75E-02	1.02E-03	5.33E-02	2.19E-02	1.66E+01
CHILD	GROUND	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03
CHILD	CLOUD	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02
CHILD	VEG. ING	1.57E-03	1.81E-02	5.39E-03	5.39E-03	4.39E-03	0.00E+00
CHILD	MEAT ING	3.17E-04	3.66E-03	1.09E-03	1.09E-03	8.87E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.09E+00	1.22E-01	9.03E-02	1.43E-01	1.10E-01	1.67E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.00E+00	4.31E-02	4.37E-04	2.28E-02	1.10E-02	1.66E+01
TEENAGE	GROUND	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03
TEENAGE	CLOUD	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02
TEENAGE	VEG. ING	2.60E-03	3.00E-02	8.91E-03	8.91E-03	7.26E-03	0.00E+00
TEENAGE	MEAT ING	5.15E-04	5.95E-03	1.77E-03	1.77E-03	1.44E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.09E+00	1.62E-01	9.39E-02	1.16E-01	1.02E-01	1.67E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.00E+00	2.54E-02	3.64E-04	1.90E-02	9.14E-03	1.66E+01
ADULT	GROUND	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03
ADULT	CLOUD	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02	8.09E-02
ADULT	VEG. ING	3.58E-03	4.14E-02	1.23E-02	1.23E-02	1.00E-02	0.00E+00
ADULT	MEAT ING	8.99E-04	1.04E-02	3.09E-03	3.09E-03	2.52E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.09E+00	1.60E-01	9.85E-02	1.17E-01	1.04E-01	1.67E+01

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 28
06/02/10

TIME STEP NUMBER 1, 10-Year Action Perio

DURATION IN YRS IS... 5.0

NUMBER 3 NAME=Three Crow .3 X= -6.5KM, Y= -2.0KM, Z= 0.0M, DIST= 6.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.21E+00	2.49E-02	2.34E-03	1.29E-01	5.02E-02	3.67E+01
INFANT	GROUND	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03
INFANT	CLOUD	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.33E+00	1.43E-01	1.20E-01	2.47E-01	1.68E-01	3.68E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.21E+00	1.88E-02	1.09E-03	5.74E-02	2.36E-02	3.67E+01
CHILD	GROUND	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03
CHILD	CLOUD	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01
CHILD	VEG. ING	1.69E-03	1.95E-02	5.80E-03	5.80E-03	4.73E-03	0.00E+00
CHILD	MEAT ING	3.41E-04	3.94E-03	1.17E-03	1.17E-03	9.55E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.33E+00	1.60E-01	1.26E-01	1.82E-01	1.47E-01	3.68E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.21E+00	4.64E-02	4.69E-04	2.46E-02	1.18E-02	3.67E+01
TEENAGE	GROUND	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03
TEENAGE	CLOUD	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01
TEENAGE	VEG. ING	2.80E-03	3.23E-02	9.60E-03	9.60E-03	7.82E-03	0.00E+00
TEENAGE	MEAT ING	5.54E-04	6.40E-03	1.90E-03	1.90E-03	1.55E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.33E+00	2.03E-01	1.30E-01	1.54E-01	1.39E-01	3.68E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.20E+00	2.73E-02	3.91E-04	2.05E-02	9.84E-03	3.67E+01
ADULT	GROUND	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03	3.89E-03
ADULT	CLOUD	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01
ADULT	VEG. ING	3.86E-03	4.46E-02	1.33E-02	1.33E-02	1.08E-02	0.00E+00
ADULT	MEAT ING	9.69E-04	1.12E-02	3.33E-03	3.33E-03	2.71E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.33E+00	2.01E-01	1.35E-01	1.55E-01	1.41E-01	3.68E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 29
METSET: DATA: TC1.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Period DURATION IN YRS IS... 5.0

NUMBER 4 NAME=Three Crow 4 X= -5.2KM, Y= 1.1KM, Z= 0.0M, DIST= 5.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

IREGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
 METSET:
 DATA: TC1.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 4 NAME=Three Crow 4 X= -5.2KM, Y= 1.1KM, Z= 0.0M, DIST= 5.3KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV.	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.94E+00	3.30E-02	3.09E-03	1.72E-01	6.67E-02	4.88E+01
INFANT	GROUND	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03
INFANT	CLOUD	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	3.15E+00	2.46E-01	2.16E-01	3.85E-01	2.80E-01	4.90E+01
AGE	PATHWAY	EFFECTIV.	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.93E+00	2.51E-02	1.44E-03	7.62E-02	3.14E-02	4.88E+01
CHILD	GROUND	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03
CHILD	CLOUD	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01
CHILD	VEG. ING	2.25E-03	2.60E-02	7.71E-03	7.71E-03	6.28E-03	0.00E+00
CHILD	MEAT ING	4.54E-04	5.24E-03	1.56E-03	1.56E-03	1.27E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	3.15E+00	2.70E-01	2.24E-01	2.99E-01	2.52E-01	4.90E+01
AGE	PATHWAY	EFFECTIV.	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.93E+00	6.17E-02	6.19E-04	3.27E-02	1.57E-02	4.88E+01
TEENAGE	GROUND	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03
TEENAGE	CLOUD	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01
TEENAGE	VEG. ING	3.72E-03	4.29E-02	1.28E-02	1.28E-02	1.04E-02	0.00E+00
TEENAGE	MEAT ING	7.36E-04	8.51E-03	2.53E-03	2.53E-03	2.06E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	3.15E+00	3.26E-01	2.29E-01	2.61E-01	2.41E-01	4.90E+01
AGE	PATHWAY	EFFECTIV.	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.93E+00	3.63E-02	5.16E-04	2.72E-02	1.31E-02	4.88E+01
ADULT	GROUND	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03	5.51E-03
ADULT	CLOUD	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01	2.08E-01
ADULT	VEG. ING	5.13E-03	5.93E-02	1.76E-02	1.76E-02	1.44E-02	0.00E+00
ADULT	MEAT ING	1.29E-03	1.49E-02	4.42E-03	4.42E-03	3.60E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	3.15E+00	3.24E-01	2.36E-01	2.63E-01	2.44E-01	4.90E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 31
METSET: DATA: TC1.MIL 06/02/10
TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.

NUMBER 5 NAME=Three Crow 5 X= -11.7 KM, Y= -4.0 KM, Z= 0.0 M, DIST= 12.4 KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Cl CODE: MILDOS-AREA (02/97)
 METSET: DATA: TC1.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 5 NAME=Three Crow 5 X= -11.7KM, Y= -4.0KM, Z= 0.0M, DIST= 12.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.24E+00	3.13E-02	2.98E-03	1.63E-01	6.33E-02	2.06E+01
INFANT	GROUND	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03
INFANT	CLOUD	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	1.35E+00	1.33E-01	1.05E-01	2.64E-01	1.65E-01	2.07E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.24E+00	2.38E-02	1.39E-03	7.23E-02	2.98E-02	2.06E+01
CHILD	GROUND	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03
CHILD	CLOUD	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02
CHILD	VEG. ING	2.13E-03	2.46E-02	7.32E-03	7.32E-03	5.96E-03	0.00E+00
CHILD	MEAT ING	4.31E-04	4.97E-03	1.48E-03	1.48E-03	1.20E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	1.34E+00	1.55E-01	1.12E-01	1.83E-01	1.39E-01	2.07E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.24E+00	5.86E-02	5.96E-04	3.10E-02	1.49E-02	2.06E+01
TEENAGE	GROUND	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03
TEENAGE	CLOUD	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02
TEENAGE	VEG. ING	3.53E-03	4.07E-02	1.21E-02	1.21E-02	9.86E-03	0.00E+00
TEENAGE	MEAT ING	6.99E-04	8.08E-03	2.40E-03	2.40E-03	1.95E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	1.34E+00	2.09E-01	1.17E-01	1.47E-01	1.28E-01	2.07E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.24E+00	3.44E-02	4.96E-04	2.58E-02	1.24E-02	2.06E+01
ADULT	GROUND	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03	2.35E-03
ADULT	CLOUD	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02	9.93E-02
ADULT	VEG. ING	4.87E-03	5.63E-02	1.67E-02	1.67E-02	1.36E-02	0.00E+00
ADULT	MEAT ING	1.22E-03	1.41E-02	4.19E-03	4.19E-03	3.42E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	1.35E+00	2.06E-01	1.23E-01	1.48E-01	1.31E-01	2.07E+01

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97)
METSET: DATA: TC1-MIL

PAGE 33
06/02/10

TIME STEP NUMBER 1: 10-Year Action Period

DURATION IN YRS IS 5.0

NUMBER 6 NAME=Three Crow 6 X= -9.5KM, Y= 2.7KM, Z= 0.0M, DIST= 9.9KM, INTTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MREM/YEAR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 34
 METSET:
 DATA: TC1.MIL
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 6 NAME=Three Crow 6 X= -9.5KM, Y= 2.7KM, Z= 0.0M, DIST= 9.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.15E+00	3.26E-02	3.06E-03	1.69E-01	6.57E-02	3.57E+01
INFANT	GROUND	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03
INFANT	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.31E+00	1.96E-01	1.66E-01	3.32E-01	2.29E-01	3.58E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.15E+00	2.47E-02	1.43E-03	7.51E-02	3.09E-02	3.57E+01
CHILD	GROUND	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03
CHILD	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
CHILD	VEG. ING	2.21E-03	2.56E-02	7.60E-03	7.60E-03	6.19E-03	0.00E+00
CHILD	MEAT ING	4.47E-04	5.17E-03	1.54E-03	1.54E-03	1.25E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.31E+00	2.19E-01	1.74E-01	2.48E-01	2.02E-01	3.58E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.15E+00	6.08E-02	6.12E-04	3.22E-02	1.55E-02	3.57E+01
TEENAGE	GROUND	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03
TEENAGE	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
TEENAGE	VEG. ING	3.66E-03	4.23E-02	1.26E-02	1.26E-02	1.02E-02	0.00E+00
TEENAGE	MEAT ING	7.26E-04	8.39E-03	2.49E-03	2.49E-03	2.03E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.31E+00	2.75E-01	1.79E-01	2.11E-01	1.91E-01	3.58E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.15E+00	3.58E-02	5.10E-04	2.68E-02	1.29E-02	3.57E+01
ADULT	GROUND	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03	4.04E-03
ADULT	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
ADULT	VEG. ING	5.06E-03	5.84E-02	1.74E-02	1.74E-02	1.41E-02	0.00E+00
ADULT	MEAT ING	1.27E-03	1.47E-02	4.36E-03	4.36E-03	3.55E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.31E+00	2.72E-01	1.86E-01	2.12E-01	1.94E-01	3.58E+01

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 35
06/02/10

DURATION IN YRS IS... 5.0

TIME STEP NUMBER 1, 10-Year Action Period

NUMBER 7 NAME=Three Crow 7

X= -3.3KM, Y= 1.0KM, Z= 0.0M, DIST= 3.5KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol
METSET:

CODE: MILDOS-AREA (02/97)
DATA: TC1.MIL

PAGE 36
06/02/10

DURATION IN YRS IS... 5.9

NUMBER 7 NAME=Three Crow

X= -3.3KM, Y= 1.0KM, Z= 0.0M, DIST= 3.5KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION. MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	2.21E+00	2.49E-02	2.34E-03	1.29E-01	5.03E-02	3.66E+01
INFANT	GROUND	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03
INFANT	CLOUD	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.36E+00	1.84E-01	1.61E-01	2.89E-01	2.09E-01	3.68E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	2.20E+00	1.89E-02	1.09E-03	5.75E-02	2.37E-02	3.66E+01
CHILD	GROUND	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03
CHILD	CLOUD	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01
CHILD	VEG. ING	1.70E-03	1.96E-02	5.82E-03	5.82E-03	4.74E-03	0.00E+00
CHILD	MEAT ING	3.42E-04	3.96E-03	1.18E-03	1.18E-03	9.58E-04	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.36E+00	2.01E-01	1.67E-01	2.24E-01	1.88E-01	3.68E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	2.20E+00	4.66E-02	4.67E-04	2.47E-02	1.18E-02	3.66E+01
TEENAGE	GROUND	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03
TEENAGE	CLOUD	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01
TEENAGE	VEG. ING	2.80E-03	3.24E-02	9.63E-03	9.63E-03	7.84E-03	0.00E+00
TEENAGE	MEAT ING	5.56E-04	6.42E-03	1.91E-03	1.91E-03	1.55E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.36E+00	2.44E-01	1.71E-01	1.95E-01	1.80E-01	3.68E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	2.20E+00	2.74E-02	3.89E-04	2.06E-02	9.87E-03	3.66E+01
ADULT	GROUND	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03	4.13E-03
ADULT	CLOUD	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01
ADULT	VEG. ING	3.87E-03	4.47E-02	1.33E-02	1.33E-02	1.08E-02	0.00E+00
ADULT	MEAT ING	9.71E-04	1.12E-02	3.34E-03	3.34E-03	2.72E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.36E+00	2.42E-01	1.76E-01	1.96E-01	1.82E-01	3.68E+01

1REGION: Crow Butte Three Crow Ol

CODE: MILDOS-AREA (02/97)

PAGE 37

06/02/10

TIME STEP NUMBER 1, 10-Year Action Period

DURATION IN YRS IS... 5.0

NUMBER 8 NAME=Three Crow 8

X= -8.3KM, Y= -4.9KM, Z= 0.0M, DIST= 9.6KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

1REGION: Crow Butte Three Crow Ol CODE: MILDOS-AREA (02/97) PAGE 38
METSET: DATA: TC1.MIL 06/02/10
 TIME STEP NUMBER 1, 10-Year Action Perio DURATION IN YRS IS... 5.0

NUMBER 8 NAME=Three Crow 8 X= -8.3KM, Y= -4.9KM, Z= 0.0M, DIST= 9.6KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
INFANT	INHAL.	1.90E+00	3.74E-02	3.54E-03	1.94E-01	7.55E-02	3.15E+01
INFANT	GROUND	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03
INFANT	CLOUD	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INFANT	TOTALS	2.06E+00	1.93E-01	1.60E-01	3.50E-01	2.32E-01	3.17E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
CHILD	INHAL.	1.90E+00	2.84E-02	1.65E-03	8.63E-02	3.55E-02	3.15E+01
CHILD	GROUND	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03
CHILD	CLOUD	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
CHILD	VEG. ING	2.54E-03	2.94E-02	8.74E-03	8.74E-03	7.12E-03	0.00E+00
CHILD	MEAT ING	5.14E-04	5.94E-03	1.76E-03	1.76E-03	1.44E-03	0.00E+00
CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CHILD	TOTALS	2.06E+00	2.20E-01	1.68E-01	2.53E-01	2.00E-01	3.17E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
TEENAGE	INHAL.	1.90E+00	6.99E-02	7.08E-04	3.70E-02	1.78E-02	3.15E+01
TEENAGE	GROUND	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03
TEENAGE	CLOUD	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
TEENAGE	VEG. ING	4.21E-03	4.86E-02	1.45E-02	1.45E-02	1.18E-02	0.00E+00
TEENAGE	MEAT ING	8.34E-04	9.64E-03	2.86E-03	2.86E-03	2.33E-03	0.00E+00
TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TEENAGE	TOTALS	2.06E+00	2.84E-01	1.74E-01	2.10E-01	1.88E-01	3.17E+01
AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
ADULT	INHAL.	1.90E+00	4.11E-02	5.90E-04	3.08E-02	1.48E-02	3.15E+01
ADULT	GROUND	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03	3.60E-03
ADULT	CLOUD	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
ADULT	VEG. ING	5.81E-03	6.71E-02	2.00E-02	2.00E-02	1.63E-02	0.00E+00
ADULT	MEAT ING	1.46E-03	1.68E-02	5.01E-03	5.01E-03	4.08E-03	0.00E+00
ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADULT	TOTALS	2.06E+00	2.81E-01	1.82E-01	2.12E-01	1.91E-01	3.17E+01